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# SATELLITE MOISTURE RETRIEVAL TECHNIQUES VOLUME 2 ATMOSPHERIC SOUNDING BIBLIOGRAPHY

Prepared By:

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*by* **RCA Government Systems Division**  
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## INTRODUCTION

This Atmospheric Sounding Bibliography of remote sensing of temperature and humidity is divided into three sections. The first digit of the page number indicates the section number, e.g., pp 1-5, 2-5, 3-5.

Section 1 is the complete bibliography referenced by year, and arranged in alphabetical order within each year.

Section 2 is referenced by a restricted list of subjects -- papers describing measurements of temperature and/or water vapor, and papers on theory -- ordered by year and name of author.

Section 3 is referenced by measurement instruments, and ordered by year and name of author.

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SECTION 1: REFERENCED BY YEAR

(1967)

1. TEMPERATURE, PRESSURE, DENSITY AND WIND MEASUREMENTS IN THE  
UPPER STRATOSPHERE AND MESOPHERE, 1965

Horvath, J. J.; Katchen, L. B.; Smith, W. S.; Swartz, P. C.; Theon, J. S.  
Goddard, NASA, Greenbelt, Md.  
Rept No: NASA-TR-R-263 (September 1967)

2. CIRCULATION FEATURES OF THE STRATOSPHERE DERIVED FROM RADIOMETRIC  
TEMPERATURE MEASUREMENTS WITH THE TIROS VII SATELLITE

Kennedy, J. S.; Nordberg, W.  
Goddard, NASA, Greenbelt, Md.  
Rept No: NASA-TM-X-55859; X-620-67-134 (March 1967)

3. COMPUTATIONS OF DOWNWARD RADIATION FLUX BASED UPON A RANDOM SAMPLE  
OF RADIOSONDE OBSERVATIONS, AND CORRELATION OF THE RESULTS WITH  
CORRESPONDING SIMULATED NIMBUS II SATELLITE AIR MASS PROPERTIES

Tupaz, Jesus Bonifacio (Masters Thesis)  
Naval Postgraduate School, Monterey, Calif. (June 1967)

(1968)

1. DETERMINATION OF THE TEMPERATURE PROFILE IN AN ATMOSPHERE  
FROM ITS OUTGOING RADIANCE

Chahine, M. T.  
Jet Propulsion Lab., Pasadena, CA  
Journal Opt. Society Am., Vol. 58, No. 12, pp 1634-37  
(December 1968)

2. ON THE ESTIMATION OF RELATIVE HUMIDITY PROFILES FROM MEDIUM RESOLUTION  
INFRARED SPECTRA OBTAINED FROM A SATELLITE

Conrath, B. J.  
Goddard, NASA, Greenbelt, Md.  
Report No.: NASA-TM-X-6G256 (June 1968)

3. INVERSION OF RADIOMETRIC MEASUREMENTS

Gille, J. C.  
Florida State Univ. Tallahassee, Fla., USA  
Bull. Amer. Meteorol. Soc., Vol. 49, No. 9, 903-13 (September 1968)

4. TEMPERATURE, PRESSURE, DENSITY, AND WIND MEASUREMENTS IN THE  
STRATOSPHERE AND MESOSPHERE, 1966

Horvath, J. J.; Katchen, L. B.; Smith, W. S.; Swartz, P. C.; Theon, J. S.  
Goddard, NASA, Greenbelt, Md.  
Rept No: NASA-TR-R-288 (August 1968)

5. METEOROLOGICAL OBSERVATIONS WITH PASSIVE MICROWAVE SYSTEMS

Kreiss, W. T.  
Univ. of Washington  
Univ. Microfilms, Ann Arbor, MI., USA Order No. 68 12, 700 (1968)

6. CAPABILITIES OF MILLIMETER WAVE RADIOMETERS FOR REMOTELY  
MEASURING TEMPERATURE PROFILES PERTINENT TO AIR POLLUTION

Mount, W. D.; Anway, A. C.; Wick, C. V.; Maloy, C. M.  
Sperry Rand Research Center  
Rept No: SRRC-CR-68-19 (1968)

(1969)

1. ON THE ESTIMATION OF RELATIVE HUMIDITY PROFILES FROM MEDIUM RESOLUTION INFRARED SPECTRA OBTAINED FROM A SATELLITE

Conrath, B. J.

Goddard, NASA, Greenbelt, MD., USA

J. Geophys. Res. (USA), Vol. 74, No. 13, 3347-61 (June 1969)

2. AIRBORNE RADIOMETRIC SYSTEM

Fow, B. R.

Sperry Rand Engng. Rev. (USA), Vol. 22, No. 4, 6-13 (1969)

3. INTERFEROMETER EXPERIMENT ON NIMBUS 3: PRELIMINARY RESULTS

Hanel, R.; Conrath, B.

Goddard, NASA, Greenbelt, MD., USA

Science (USA) Vol.165, No.3899 1258-60 (1969)

4. APPLICATION OF NONLINEAR INVERSION TECHNIQUES TO GROUND-BASED MICROWAVE OBSERVATIONS

House, Frederick B.; Corbin, Victor L.

GCA Corp

Rept No: GCA-TR-69-4-A (May 1969)

5. ACCURATE FOREIGN GAS BROADENING PARAMETERS (THE 22 GHz H<sub>2</sub>O LINE FROM REFRACTION SPECTROSCOPY)

Liebe, H. J. ; Dillon, T. A.

Inst. Telecommunication Sci., Tropospheric Telecommunications Lab.,  
Boulder, CO., USA

J. Chem. Phys. (USA), Vol. 50, No. 2, 727-32 (January 1969)

6. ON APPLICATION OF THE STATISTICAL METHOD FOR DETERMINATION OF ATMOSPHERIC TEMPERATURE PROFILES FROM SATELLITES

Malkevich, M. S.; Kozlov, V. P.; Gorchakova, I. A.

Inst. Atmospheric Physics, Moscow, USSR

Tellus (Sweden) Vol,21, No. 3, 389-94 (1969)

7. OBSERVATION OF RAMAN SCATTERING BY WATER VAPOR IN THE ATMOSPHERE

Melfi, S. H.; Lawrence, J.D., Jr.  
NASA, Langley, Hampton, VA  
Appl. Phys. Letters (USA), Vol. 15, No. 9, 295-7 (1969)

8. ON THE STATISTICAL RELATION BETWEEN GEOPOTENTIAL HEIGHT AND  
TEMPERATURE PRESSURE PROFILES

Smith, W. L.; Fritz, S.  
Nat. Environ. Sat. Serv., NOAA, Washington  
Rept No: NESCTM-18 (December 1969)

9. THE IMPROVEMENT OF CLEAR COLUMN RADIANCE DETERMINATION WITH A  
SUPPLEMENTARY 3.8 MICRUMETER WINDOW CHANNEL

Smith, William L.  
Nat. Environ. Sat. Serv., NOAA, Washington  
Rept No: NESCTM-16 (July 1969)

10. PASSIVE REMOTE SENSING AT MICROWAVE WAVELENGTHS

Staelin, D. H.  
Proc. IEEE (USA), Vol. 57, No. 4, 427-39 (April 1969)

11. ATMOSPHERIC TEMPERATURE: SUCCESSFUL TEST OF REMOTE PROBING

Wark, D. Q.; Hilleary, D. T.  
Nat. Envir. Sat. Serv., Washington, D. C., USA  
Science (USA) Vol.165, No. 3899 1256-8 (September 1969)

(1970)

1. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURE FROM SATELLITES.  
II. THE SELECTIVE CHOPPER RADIOMETER FOR NIMBUS D

Abel, P. G.; Ellis, P. J.; Houghton, J. T.; Peckham, G.;  
Rodgers, C. D.; Smith, S. D.; Williamson, E. J.  
Univ. Oxford, England  
Proc. R. Soc. A (GB) Vol. 320, No. 1540, 35-55 (1970)

2. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURES FROM SATELLITES.  
III. MEASUREMENTS UP TO 35 KM ALTITUDE WITH A BALLOON-BORNE  
SELECTIVE CHOPPER RADIOMETER

Abel, P. G.; Houghton, J. T.; Matley, J. B.; Williamson, E. J.  
Univ. Oxford, England  
Proc. R. Soc. A (GB) Vol. 320, No. 1540 57-69 (1970)

3. ACCURACY OF WATER VAPOR EMISSIONS COMPUTATIONS USING THE STATISTICAL  
BAND MODEL

Andritschke, S.  
Ludwig Maximilians Univ., Munchen, Germany  
Beitr. Phys. Atmos. (Germany), Vol. 43, No. 3, 171-88 (1970)

4. ELECTROMAGNETIC PHASE VARIABILITY AS A MEASURE OF WATER VAPOR  
AND TEMPERATURE VARIATIONS OVER EXTENDED PATHS

Bean, B. R.; McGavin, R. E.  
ESSA Research Labs  
AGARD Conf. Proc. No. 33, p729-3, (November 1970)

5. TEMPERATURE, PRESSURE, DENSITY, AND WIND MEASUREMENTS IN THE  
STRATOSPHERE AND MESOPHERE

Casey, J. F.; Horvath, J. J.; Smith, W. S.; Theon, J. S.  
Goddard, NASA, Greenbelt, Md.  
Rept No: NASA-TR-R-340; G-980 (August 1970)

6. INVERSE PROBLEMS IN RADIATIVE TRANSFER: DETERMINATION OF  
ATMOSPHERIC PARAMETERS

Chahine, M. T.

Jet Propulsion Laboratory, Pasadena, CA  
Journal of Atmospheric Sciences, Vol. 27, pp 960-67,  
(September 1970)

7. COMPARISONS OF  $H_2O$  VAPOR PROFILES OBTAINED BY RADIOSONDE AND  
LASER BACKSCATTER

Cooney, John A.

Drexel Inst. of Tech Philadelphia PA  
Rept No: Scientific 3  
Agency: AFCRL (1970)

8. ATMOSPHERIC TEMPERATURE PROFILES USING SATELLITE BORNE LASER

Gale, W. A.

Bellcomm, Inc.  
Rept No: NASA-CR-108907; TM-70-1011-1

9. METEOROLOGICAL INFRARED INSTRUMENTS FOR SATELLITES

Goldberg, I. L.

Goddard, NASA, Greenbelt, MD.  
Soc. Photo-Opt. Instrum. Eng. J. (USA), Vol. 9, No. 1, 22-31  
(October 1970)  
Coden: JPIEAK

10. THERMAL EMISSION SPECTRA OF THE EARTH AND ATMOSPHERE FROM THE NIMBUS  
4 MICHELSON INTERFEROMETER EXPERIMENT

Hanel, R. A.; Conrath, B. J.

Goddard, NASA, Greenbelt, MD., USA  
Nature (GB) Vol. 228, No. 5267, 143 5 (1970)

11. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURE FROM SATELLITES.  
I. INTRODUCTION

Houghton, J. T.; Smith, S. D.

Univ. Oxford, England

Proc. R. Soc. A (GB) Vol. 320 No.1540 23-33 (1970)

12. SIMULATION STUDIES RELATED TO GARP

Jastrow, R.; Halem, M.  
Institute for Space Studies, Goddard Space Flight Center,  
NASA, N. Y., NY  
Bul. of American Meteorological Society, Vol. 51, No. 6,  
pp 490-513 (June 1970)

13. REMOTE SOUNDING OF THE UPPER ATMOSPHERE BY MICROWAVE MEASUREMENTS

Lenoir, W. B.  
MIT, Cambridge, Mass., USA

14. DETERMINATION OF THE EARTH'S SURFACE TEMPERATURE FROM REMOTE  
SPECTRAL RADIANCE OBSERVATIONS NEAR  $2600 \text{ CM}^{-1}$

Shaw, J. H.  
Ohio State University, Columbus, OH  
Journal of Atmospheric Science, Vol. 27, pp 950-59  
(September 1970)

15. ITERATIVE SOLUTION OF THE RADIATIVE TRANSFER EQUATION FOR THE  
TEMPERATURE AND ABSORBING GAS PROFILE OF AN ATMOSPHERE

Smith, W. L.  
Nat. Envir. Sat. Service, NOAA, Washington, D.C., USA  
Appl. Opt. (USA), Vol. 9, No. 9, 1993-9, (September 1970)

16. SIRS: AN EXPERIMENT TO MEASURE THE FREE AIR TEMPERATURE FROM A SATELLITE

Wark, D. Q.  
Nat. Envir. Sat. Service, Washington, D.C., USA  
Appl. Optics (USA), Vol. 9, No. 8, 1761-6 (August 1970)

(1971)

1 POTENTIAL CAPABILITIES OF FOUR LOWER ATMOSPHERE REMOTE SENSING  
TECHNIQUES

Beran, D. W.; Chadwick, R. B.; Decker, M. T.; Hall, F. F.; Littel, C. G.  
Wave Prop. Lab., NOAA, Boulder, Colorado  
Rept No: WPL-20 (NOAA) (December 1971)

2. VERTICAL SOUNDING OF THE ATMOSPHERE WITH NIMBUS IV INFRARED SPECTROMETER  
EXPERIMENT

Conrath, B. J.; Hanel, R. A.; Prabhakara, C.; Kunde, V. G.; Revah, I.;  
Salomonson, V. U.  
NASA, Greenbelt, MD., USA  
Proc. of 21st Congress of International Astronautical Federation,  
1009-18 (1971)

3. VERTICAL RESOLUTION OF TEMPERATURE PROFILES OBTAINED FROM  
REMOTE RADIATION MEASUREMENTS

Conrath, B. J.  
Goddard, NASA, Greenbelt, Md.  
Rept No: NASA-TM-X-66009; X-622-71-51 (November 1971)

4. DETERMINING THE TEMPERATURE PROFILE OF THE ATMOSPHERE FROM SATELLITE  
MEASUREMENTS

Fischer, H.  
Verh. Deut Phys. Ges. (Germany), No. 11, 883-4 (1971)  
Coden: VDPEAZ  
Physic and Meteorology Conference (Abstracts Only) (October 1971)

5. A REGULARIZATION METHOD AS USED FOR THE DETERMINATION OF ATMOSPHERIC  
WATER VAPOR VERTICAL PROFILES

Glasko, V. B.; Timofeev, YU. N.; Tikhonravov, A. V.  
Izvi Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol 7, No. 6, 583-9  
(June 1971)  
Coden IFAOAV  
Bull. Acad. Sci USSR, Atmos. and Ocean Phys. Ser. (USA)  
Coden: BSUAAZ

6. INVESTIGATION OF REMOTE MONITORING OF ATMOSPHERIC TEMPERATURE STRUCTURE

Goetze, Dieter  
Honeywell, Inc.  
Final rept. (May 1971)  
Contract: C-1-35238 (NOAA)

7. ON THE DETERMINATION OF VERTICAL HUMIDITY PROFILES IN THE ATMOSPHERE BY MEASURING THE EARTH'S RADIATION FROM SATELLITES

Gorchakova, I. A.; Demin, V. V.; Ershov, A. T.  
Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol. 7, No. 8, 841-7,  
(August 1971)  
Coden: IFAOAV  
Trans. In: Bull. Acad. Sci USSR, Atmospheric and Ocean Physics Ser. (USA)  
Coden: BSUAAZ

8. EXAMPLES OF DETERMINATION OF THE VERTICAL HUMIDITY PROFILE ACCORDING TO GROUND MEASUREMENTS OF ATMOSPHERIC THERMAL RADIOEMISSION AT H<sub>2</sub>O ABSORPTION LINE  $\lambda=1.35$  CM

Gorchakova, I. A.; Malkevich, M. S.; Naumov, A. P.; Plechkov, V. M.  
Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol. 7, No. 7, 731-6 (May 1971)  
Coden: IFAOAY  
Trans In: Bull. Acad. Sci USSR, Atmos. and Ocean Phys. Ser (USA)  
Coden: BSUAAZ

9. INVESTIGATION OF THE 60 GHz ATMOSPHERIC OXYGEN MANTLE FOR APPLICATION TO VERTICAL SENSING

Guidice, Donald A.  
Air Force Cambridge Research Labs  
Rept No: AFCRL-71-0116 (January 1971)

10. SOME ASPECTS OF PRACTICAL SOLUTION OF THE PROBLEM ON ATMOSPHERIC THERMAL SOUNDING FROM SATELLITES

Kondratyev, K. YA.; Pokrovsky, O. M.; Timofeev, YU. M.  
Napolitano. L.G. (Editors)  
Astronautical Research 1970. Proceedings of the 21st Congress  
of the International Astronautical Federation, 1027-30 (1971)

11. REMOTE SENSING OF TROPOSPHERIC TEMPERATURE STRUCTURE BY MEANS  
OF PASSIVE MICROWAVE RADIOMETRY

Miner, Gayle; Thornton, Douglas D.; Welch, William J.  
California University  
Final rept. (February 1971)  
Contract: F19628-68-C-0022 (AFCRL)

12. REMOTE SENSING OF THE ATMOSPHERE BY OCCULTATION SATELLITES

Polalaza-Diaz, J. C.  
Stanford University. Calif. USA  
Avail: Univ. Microfilms, Ann Arbor, Mich. Order No. 70-18487

13. VERTICAL DISTRIBUTIONS OF ATMOSPHERIC WATER VAPOR FROM SATELLITE  
INFRARED SPECTROMETER MEASUREMENTS

Smith, William L.; Howell, H. B.  
Nat. Envir. Sat. Service, NOAA  
J. Applied Meteorology (USA), Vol. 10, No. 5, 1026-34, (May 1971)

14. MICROWAVE DETERMINATION OF LOW ALTITUDE TEMPERATURE PROFILES

Westwater, E. R.  
NOAA Boulder, Colo., USA  
Proceeding of the 7th International Symposium on Remote Sensing of the  
Environment, 585-94 (1971)

15. APPLICATION OF SATELLITE INFRARED RADIATION MEASUREMENTS TO NUMERICAL  
ANALYSIS AND FORECASTING

Woolf, H. M.; Smith, W. L.; Hayden, C. M.  
Verh. Deut. Phys. Ges. (Germany), No. 11, 884 (1971)  
Coden: VDPEAZ

(1972)

1. A GENERAL RELAXATION METHOD FOR INVERSE SOLUTION OF THE FULL RADIATIVE TRANSFER EQUATION

Chahine, M. T.  
Jet Propulsion Lab., Pasadena, CA  
Journal of Atmospheric Sciences, Vol. 29, No. 4, pp 740-47  
(May 1972)

2. VERTICAL RESOLUTION OF TEMPERATURE PROFILES OBTAINED FROM REMOTE RADIATION MEASUREMENTS

Conrath, B. J.  
Lab. for Planetary Atmos., Goddard SFC, NASA, Greenbelt, MD  
Journal of Atmos. Sciences, Vol. 29, pp 1262-70  
(October 1972)

3. SIMULATION OF THE INFLUENCE OF VARYING ATMOSPHERIC STATISTICS ON THE ACCURACY OF TEMPERATURE PROFILES DERIVED FROM SATELLITE MEASUREMENTS

Crosby, D. S.; Weinreb, M. P.  
American University, Washington, D. C.  
Trans. Am. Geophys. Union (USA), Vol. 53, No. 4, 386 (April 1972)

4. UNIVERSAL TRANSMITTANCE REPRESENTATIONS FOR APPLICATION TO ITPR MEASUREMENTS

Davis, Paul A.  
Stanford Research Inst.  
Final Rept Contract: NOAA-2-35136 (May 1972)

5. INFRA-RED ATMOSPHERIC TEMPERATURE SOUNDING FROM SATELLITES

Ellis, P. J.; Peckham, G.; Sandwell, R.; Smith, S. D.;  
Houghton, J. T.; Rodgers, C. D.; Williamson, E. J.  
Heriot-Watt Univ. Riccarton, Currie, Scotland  
Radio and Electron. Eng. (GB) Vol.42, No.4 155-61 (April 1972)  
Coden: RDEEA4

6. DETERMINATION OF VERTICAL PROFILE OF HUMIDITY FROM GROUND BASED PASSIVE PROBING MEASUREMENTS OF THE ATMOSPHERIC ABSORPTION

Ershov, A. T.; Naumov, A. P.; Plechkov, V. M.  
Izv. Vuz Radiofiz. (USSR), Vol. 15, No. 4, 510-16 (1972)  
Coden: IVYRAY  
Trans In: Radiophys. and Quantum Electron (USA)  
Coden: SORPAK

7. TEMPERATURE SOUNDING FROM SATELLITES

Fritz, S.; Wark, D. Q.; Fleming, H. E.; Smith, W. L.;  
Jacobowitz, H.; Hilleary, D. T.; Alishouse, J. C.  
National Environmental Satellite Service, NOAA, Washington, D.C.  
NOAA Technical REport NESS 59  
(July 1972)

8. OBSERVATIONS OF THE GLOBAL STRUCTURE OF THE STRATOSPHERE AND MESOSPHERE WITH SOUNDING ROCKETS AND WITH REMOTE SENSING TECHNIQUES FROM SATELLITES

Heath, D. F.; Hilsenrath, E.; Krueger, A. J.; Nordberg, W.;  
Prabhakara, C.  
Goddard, NASA, Greenbelt, Md.  
Rept No: NASA TM-X-66044; X-651-72-279 (August 1972)

9. STATUS OF REMOTE SENSING OF THE TROPOSPHERE

Little, C. Gordon  
NOAA  
Bull. Amer. Met. Soc. Vol. 53, No. 10, 936-9 (October 1972)

10. TRANSMITTANCE FUNCTIONS FOR SATELLITE TEMPERATURE SOUNDING

McClatchey, R. A.  
Air Force Cambridge R. Labs., Bedford, Mass., USA  
Bull. Am. Meterol. Soc. (USA), Vol. 53, No. 5, 503-4 (May 1972)  
Coden: BAMIAT

11. INFERENCE OF STRATOSPHERIC TEMPERATURE STRUCTURE FROM LIMB RADIANCE PROFILES

McKee, T. B.  
Colorado State Univ., Fort Collins, USA  
Bull. Am. Meterol. Soc. (USA) Vol.53, No. 5, 499 (May 1972)  
Coden: BAMIAT

12. RESULTS OF A ROCKET NIMBUS SOUNDER COMPARISON EXPERIMENT

Miller, A. J.; Finger, F. G.  
National Meteorological Center, NOAA, Washington, DC  
Rept No: NASA-CR-62081 (June 1972)

13. SIMULTANEOUS FM CW RADAR AND LIDAR PROBING OF THE ATMOSPHERE

Noonkester, V. R.; Jensen, D. R.; Richter, J. H.  
Naval Electronics Lab Center NOAA, Washington,  
Rept No: NELC-TR-1849 (November 1972)

14. APPLICATION OF STEPWISE MULTIPLE REGRESSION TECHNIQUES TO  
INVERSION OF NIMBUS "IRIS" OBSERVATIONS

Ohring, G.  
GCA Corporation, Bedford, MA  
Monthly Weather Review, Vol. 100, No. 5, pp 336-44  
(May 1972)

15. THERMAL SOUNDING EXPERIMENT BY THE METEOR ARTIFICIAL EARTH SATELLITE

Pakhomov, L. A.; Timofeyev, Y. M.; Shkyarevskiy, V. G.;  
Pokrovskiy, O. M.  
Techtran Corp.  
Rept No: NASA-TT-F-14493 (July 1972)

16. ON OPTIMAL CONDITIONS FOR INDIRECT PROBING OF THE ATMOSPHERE

Pokrovskii, O. M.  
Leningrad State Univ., USSR  
Izv. Akad. Nauk SSSR Fiz. Atmos. and Okeana Vol. 8, No. 10, 1094-7  
(October 1972)  
Coden: IFAOAV  
Trans In: Bull. Acad. Sci. USSR Atmos. and Ocean Phys. Ser. (USA)  
Coden: BSUAZ

17. MICROWAVE RADIOMETRIC MEASUREMENTS OF ATMOSPHERIC TEMPERATURE AND  
WATER FROM AN AIRCRAFT

Rosenkranz, P. W.; Barath, F. T.; Blinn, J. C., III; Johnston, E. J.;  
Lenoir, W. B.; Staelin, D. H.; Waters, J. W.  
Calif. Inst. Technol., Pasadena, CA., USA  
J. Geophys. Res. (USA), Vol. 77, No 30, 5833-44, (October 1972)  
Coden: JGREA2

18. SOME RESULTS OF THE INTERPRETATION OF HIGH RESOLUTION IMAGERY DATA FROM NOAA SPACECRAFT

Salter, P. R. S.  
Meteorological Office, Bracknell, England  
Weather (GB) Vol. 32, No. 6, 208-16 (June 1972)  
Coden: WTHRAL

19. STATISTICAL VERSUS NONSTATISTICAL TEMPERATURE INVERSION METHODS

Smith, W. L.; Fleming, H. E.  
Natl. Envir. Sat. Service, NOAA, Washington  
NASA-TM-X-62150 (August 1972)

20. RETRIEVAL OF ATMOSPHERIC TEMPERATURE PROFILES FROM SATELLITE MEASUREMENTS FOR DYNAMICAL FORECASTING

Smith, W. L.; Woolf, H. M.; Fleming, H. E.  
Journal Appl. Meteorology, Vol. 11, pp 113-22  
(February 1972)

21. RETRIEVAL OF ATMOSPHERIC TEMPERATURE PROFILES FROM SATELLITE MEASUREMENTS FOR DYNAMICAL FORECASTING

Smith, W. L.; Woolf, H. M.; Fleming, H. E.  
Nat. Envir. Sat. Serv, Noaa, Washington  
J. Appl. Meteorol. (USA) Vol. II, No.1, 113-22 (Febrary 1972)

22. SATELLITE TECHNIQUES FOR OBSERVING THE TEMPERATURE STRUCTURE OF THE ATMOSPHERE

Smith, W. L.  
Nat. Envir. Sat. Serv., NOAA, Washington, D.C.  
Bull Am. Meteorol. Soc. (USA), Vol. 53, No. 11, 1074-82 (November 1972)  
Coden: BAMIAT

23. IMPROVEMENT OF SYNOPTIC SCALE MOISTURE AND WIND FIELD ANALYSIS USING THE NIMBUS 4 THIR 6.9 MICROMETER OBSERVATIONS

Steranka, J.; Allison, L. J.; Salomonson, V. V.  
Goddard, NASA, Greenbelt, MD.  
Bull. AM. Meterol. Soc. (USA), Vol. 53, No. 5, 508 (May 1972)  
Coden: BAMIAT

24. STUDY OF THE EFFECTS OF ATMOSPHERIC TURBIDITY ON SATELLITE TEMPERATURE SOUNDINGS, RADIATION ENERGETICS, AND POLARIZATION OF TERRESTRIAL INFRARED RADIATION

Stowe, Larry L. Jr; Giroux, Hans D.  
California University, NOAA  
Final rept. (July 1972)  
Grant: NOAA-E143-59 (G)

25. ATMOSPHERIC WATER VAPOUR MEASUREMENT BY RAMAN LIDAR

Strauch, R. G.; Derr, V. E.; Cupp, R. E.  
Nat. Envir. Sat. Service, NOAA, Boulder, Colo. USA  
Remote Sensing Environ. (USA) Vol 2, No. 2, 101 (1972)  
Coden: RSEEA7

26. RADIOMETER FOR REMOTE SOUNDING OF THE UPPER ATMOSPHERE

Taylor, F. W.; Houghton, J. T.; Poskett, C. D.; Rodgers, C. D.;  
Williamson, E. J.  
Oxford Univ., England  
Appl. Optics (USA), Vol. 11, No. 1, 135-41 (January 1971)

27. AN OCCULATATION SATELLITE SYSTEM FOR DETERMINING PRESSURE LEVELS IN THE ATMOSPHERE

Unqar, S. G.  
Stanford University, Calif. USA  
Avail: Univ. Microfilms, Ann Arbor, Mich., USA, Order No. 72-16809

28. OPTIMIZATION OF SPECTRAL INTERVALS FOR REMOTE SENSING OF ATMOSPHERIC TEMPERATURE PROFILES

Weinreb, M. P.; Crosby, D. S.  
Nat. Envir. Sat. Serv., NOAA, Washington, D. C.  
Remote Sensing Environ (USA), Vol. 2, No. 3, 193-01 (October 1972)  
Coden: RSEEA7

(1973)

1. STATISTICAL RETRIEVAL TECHNIQUES FOR OBTAINING STRATOSPHERIC  
STRUCTURE PROFILES FROM LIMB RADIANCE MEASUREMENTS

Bailey, R. L.; Gillie, J. C.

Nat. Center Atmospheric Res., Boulder, Colo., USA  
EOS Trans. Am. Geophys. Union (USA), Vol. 54, No. 4, 278 (April 1973)

2. ESTABLISHMENT OF THE VERTICAL HUMIDITY PROFILE TO THE VERTICAL  
TEMPERATURE PROFILE

Baslova, T. I.

Foreign Technology Div., Wright Patterson AFB, Ohio  
Rept No: FTD-HT-23-602-73 (July 1973)

3. INDIRECT VERTICAL PROFILE DETERMINATION OF THE ATMOSPHERIC MOISTURE  
CONTENT

Bogomolov, O. S.; Panin, B. D.

Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol 9, No. 4, 363-70  
(April 1973)

Coden: IFAOAV

Trans In: Bull. Acad. Sci. USSR. Atmos. and Ocean Phys. Ser. Vol. 9,  
No. 4

Coden: BSUAAZ

4. EVALUATION OF THE CHARACTERISTICS OF THE VERTICAL DISTRIBUTION  
OF MOISTURE IN THE ATMOSPHERE USING SATELLITE MEASUREMENTS

Boldyrev, V. G.; Gurvich, A. S.; Dombkovskaya, E. P.; Krasilnikova, T. G.

Foreign Technology Div., Wright Patterson AFB, Ohio

Rept No: FTD-HT-23-368-73 (June 1973)

5. A RADIATION MODEL FOR CALCULATING ATMOSPHERIC CORRECTIONS TO  
REMOTELY SENSED INFRARED MEASUREMENTS, VERSION 2

Boudreau, R. D.

NASA

Rept No: NASA-TM-X-69939; ERL-053 (September 1973)

6. ARGON: A 'THERMOMETER' OF THE UPPER ATMOSPHERE

Chandra, S.; Spencer, N. W.  
Goddard, NASA, Greenbelt, MD., USA  
EOS Trans. Am. Geophys. Union (USA), Vol.54, No.11, 1146 (November 1973)  
Coden: EOSTAJ

7. A METHOD FOR EXTENDING THE USE OF RAMAN LIDAR TO DAYTIME

Cooney, J. A.  
Drexel Univ., Philadelphia, PA., USA  
J. Appl. Meteorol. (USA), Vol. 12, No. 5, 888-90, (August 1973)  
Coden: JAMOAX

8. INFRARED HEATING CALCULATIONS WITH A WATER VAPOUR PRESSURE BROADENED CONTINUUM

Cox, S. K.  
Colorado State Univ., Fort Collins, USA  
Q. J. R. Meteorol. Soc. (GB), Vol. 99, No. 422, 669-79 (October 1973)  
Coden: QJRMAM

9. COVARIANCE MATRICES AND MEANS OF ATMOSPHERIC PLANCK FUNCTION PROFILES FOR APPLICATION TO TEMPERATURE SOUNDING FROM SATELLITE MEASUREMENTS

Crosby, D. S.; Fleming, H. E.; Wark, D. Q.  
Nat. Envir. Sat. Serv., Washington, D. C.  
J. Atmos. Sci. (USA), Vol. 30, No.1, 141-4 (January 1973)  
Coden: JAHSAK

10. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURE FROM SATELLITES.  
IV. THE SELECTIVE CHOPPER RADIOMETER FOR NIMBUS 5

Ellis, P.; Holah, G.; Houghton, J. T.; Jones, T. S.; Peckham, G.;  
Peskett, G. D.; Pick, D. R.; Rodgers, C. D.; Roscoe, H.;  
Sandwell, R.; Smith, S. D.; Williamson, E. J.  
Heriot-Watt Univ., Edinburgh, Scotland;  
Proc. R. Soc. A (GB), Vol. 334, No. 1597, 149-70 (1973)

11. CRITICAL ANALYSIS OF THE RESULTS OBTAINED BY SIRS-A BY TELEMETRY IN THE FIELD OF TEMPERATURE OVER THE MEDITERRANEAN

Fea, M.: Bizzarri, B.  
Servizio Meterological Dell' Aeronautica, Roma, Itali  
Teleradiocinematographica - 13th International Meeting on Space:  
Monitoring of Terrestrial Environmental from Space (1973)  
Publ: Rassenga Int Elettronica Nucleare E Teleradio Cinematographica

12. DISTRIBUTION OF WATER VAPOR IN THE STRATOSPHERE AS DETERMINED  
FROM BALLOON MEASUREMENTS OF ATMOSPHERIC EMISSION SPECTRA IN THE  
24-29 MICROMETER REGION

Goldman, A.; Murcray, D. G.; Murcray, F. H.; Williams, W. J.; Brooks, J. N.  
Univ. Denver, Colo., USA  
Appl Opt. (USA), Vol. 12, No. 5, 1045-53 (May 1973)  
Coden: APOPAI

13. THE DETERMINATION OF THE GENERAL MOISTURE CONTENT OF THE ATMOSPHERE  
FROM ITS INTRINSIC RADIO FREQUENCY EMISSION

Gorelik, A. G.; Kalashnikov, V. V.; Frolov, Yu. A.  
Foreign Technology Div Wright Patterson AFB Ohio:  
Rept No: FTD-MT-24-698-73 (August 1973)

14. THE DEVELOPMENT OF TECHNIQUES FOR OPERATIONAL EXPLOITATION OF SATELLITE  
OBSERVED SOUNDING DATA FOR RESOLUTION OF ATMOSPHERIC THERMAL STRUCTURE  
VARIABILITIES

Holl, Manfred M.  
Meteorology International Inc.  
Rept No: M-181-3 (June 1973)

15. REMOTE SOUNDING FROM ARTIFICIAL SATELLITES AND SPACE PROBES OF THE  
ATMOSPHERES OF EARTH AND THE PLANETS

Houghton, J. T.; Taylor, F. W.  
Univ. of Oxford, England  
Rep. Prog. Phys. (GB), Vol. 36, No. 7, 827-19 (1973)  
Coden: RPPHAG

16. ACCURACY AND COVERAGE OF TEMPERATURE DATA DERIVED FROM IR RADIOMETER  
ON NOAA 2 SATELLITE

Jastrow, R. J.; Hale, M.  
Goddard Space Institute, NASA, New York USA  
J. Atmos Sci (USA), Vol. 30, No. 5, 958-64 (July 1973)  
Coden: JAHSAK

17. A COMPARISON BETWEEN STRATOSPHERIC TEMPERATURES MEASURED IN SITU  
BY RADIOSONDES AND REMOTELY SENSED BY THE VERTICAL TEMPERATURE  
PROFILE RADIOMETER (VTPR) OF THE NOAA 2 SATELLITE

Johnson, K. W.  
Nat. Weather Service, NOAA, Washington, USA  
EOS. Trans. Am. Geophys. Union (USA), Vol. 54, No. 4, 277 (April 1973)

18. THE MEASUREMENT OF ATMOSPHERIC TEMPERATURE PROFILES FROM SATELLITES

Major, G.

Kozponti Legkorfizikai Intezet, Budapest, Hungary  
Fiz. Sz. (Hungary), Vol. 23, No. 6, 174-8 (June 1973)  
Coden: FISZA6

19. METEOROLOGICAL FIELDS FROM REMOTE INFRARED SENSING

Ohring, G.

Tel Aviv Univ., Ramat Aviv, Israel  
Geophys. Surv. (Netherlands), Vol. 1, No. 2, 163-93 (September 1973)  
Coden: JGREAS

20. MICROWAVE RADIOMETRY APPLICATIONS STUDY. VOLUME I

Olson, R. C.; Hubbard, W. A.; Delaney, L. J.; Dunning, C. E.;  
Blinn, J. C.  
Aerojet Electrosystems Co.  
Final rept. (November 1973)  
Rept No: AESC 1798FR 1 Vol 1

21. MICROWAVE RADIOMETRY APPLICATIONS STUDY. VOLUME II APPENDICES

Olson, R. C.; Hubbard, W. A.; Delaney, L. J.;  
Dunning, C. E.; Blinn, J. C.  
Aerojet Electrosystems Co.  
Final rept. (November 1973)  
Rept No: AESC-1798FR-1 Vol 2  
Rept No: SAMSO-TR-73-381-Vol 2

22. MICROWAVE SPECTROMETER ON THE NIMBUS 5 SATELLITE: METEOROLOGICAL AND GEOPHYSICAL DATA

Staelin, D. H.; Barrett, A. H.; Waters, J. W.; Barath, F. I.;  
Johnson, E. J.; Rosencranz, P. W.; Gaut, N. E.; Lenoir, W. B.  
M.I.T., Cambridge, Mass.  
Science (USA), Vol. 192, No. 4119, 1339-41 (December 1973)  
Coden: SCIEAS

23. APPLICATION OF NIMBUS 4 THIR 6.7 MICROMETER OBSERVATIONS TO REGIONAL AND GLOBAL MOISTURE AND WIND FIELD ANALYSES

Steranka, J.; Allison, L. J.; Salomonson, V. V.  
NASA, Greenbelt, MD., USA  
J. Appl Meteorol. (USA), Vol. 12, No. 2, 386-95 (March 1973)  
Coden: JAMOAX

24. EXPECTED ACCURACY OF TROPOPAUSE HEIGHT AND TEMPERATURE AS DERIVED FROM SATELLITE RADIATION MEASUREMENTS

Strand, O. N.  
Environmental Research Laboratories  
NOAA, Boulder, Col.  
NOAA Technical Report ERL 295-WPL-28  
(December 1973)

25. A TWO SATELLITE MICROWAVE OCCULTATION SYSTEM FOR DETERMINING PRESSURE ALTITUDE REFERENCES

Ungar, S. G.; Lusignan, B. B.  
Stanford University, Calif., (USA)  
J. Appl. Meteorol. (USA), Vol. 12, No. 2, 396-03 (March 1973)  
Coden: JAMOAX

26. THE RELATION BETWEEN TEMPERATURE AND HUMIDITY IN THE FREE ATMOSPHERE UNDER CONDITIONS OF STABLE STRATIFICATION AND STRONG THERMAL INTERMITTENCY: A CASE STUDY

Warhaft, Z.  
SRC, Slough, England  
Q. J. R. Meteorol. Soc (GB), Vol. 99, No. 419, 89-104, (January 1973)  
Coden: QJRMAM

27. OPERATIONAL SOUNDING OF THE ATMOSPHERE FROM NOAA 2 SATELLITE DATA

Wark, D. Q.; Bittner, F. E.; Crosby, D. S.; Fleming, H. E.;  
Lauritson, L.A.; Luebbe, R.C.; McMillin, L.M.; Pritchard, J.A.;  
Weinreb, M.P.; Werbowetzke, A.  
Nat. Environ., Sat. Serv., NOAA, Washington, DC USA  
EOS Trans. Am. Geophys. Union (USA), Vol. 54, No.4, 276 (April 1973)

28. REMOTE SENSING OF STRATOSPHERIC AND MESOSPHERIC TEMPERATURE BY MICROWAVE RADIOMETRY

Waters, J. W.; Staelin, D. H.  
MIT, Cambridge, MASS., USA  
Eos Trans. Am. Geophys. Union (USA), Vol. 54, No. 4, 278 (April 1973)

29. METHOD TO APPLY HOMOGENEOUS-PATH TRANSMITTANCE MODELS TO INHOMOGENEOUS ATMOSPHERES

Weinreb, M. P.; Neuendorffer, A. C.  
National Environmental Satellite Service, NOAA,  
Washington, D.C.  
Journal of Atmospheric Sciences, Vol. 30, pp 662-66  
(May 1973)

(1974)

1. ATMOSPHERIC MEASUREMENTS AT MILLIMETER WAVELENGTHS

Barrett, Alan H.; Lam, Kai S.; Staelin, David H.  
Massachusetts Inst of Tech Cambridge Research Lab of Electronics  
Air Force Cambridge Research Labs  
Final Rept. (December 1974)  
Rept. No. AFCRL-TR-74-0633

2. THE DESIGN, CONSTRUCTION, AND CALIBRATION OF AN INFRARED PROFILE RADIOMETER (ITPR) FOR NIMBUS E

Bowen, G. S.  
Gulton Industries, Inc. Albuquerque, N. Mex., USA  
ISA Trans. (USA), Vol. 13, No. 2, 101-19 (1974)  
Coden: ISATAZ

3. STUDY IN THE AREA OF SATELLITE METEOROLOGY. VOLUME I . MESOSCALE WEATHER ANALYSIS AND PREDICTION

Blackmer, Roy H. Jr; Davis, Paul A.; Mancuse, Robert L.;  
Serebreny, Sidney M.; Wieman, Eldon J.  
Stanford Research Inst, Atmospheric Sciences Lab.  
Final Rept. Contract: DAAD07-73-6-0317 (December 1974)

4. THE EFFECT OF ATMOSPHERIC CO<sub>2</sub> VARIATIONS ON SATELLITE SOUNDED TEMPERATURES

Bruce, Rufus E.; Duncan, Louis D.  
Army Electronics Command.  
Rept No: ECOM-5552 (December 1974)

5. REMOTE SOUNDING OF CLOUDY ATMOSPHERES  
I. THE SINGLE CLOUD LAYER

Chahine, M. T.  
Jet Propulsion Laboratory, Pasadena, CA  
Journal of Atmospheric Sciences, Vol. 31, No. 1, pp 233-43  
(January 1974)

6. AN ITERATIVE SCHEME FOR DETERMINING SEA SURFACE TEMPERATURES, TEMPERATURE PROFILES, AND HUMIDITY PROFILES FROM SATELLITE MEASURED INFRARED DATA

Chow, M. D.

New York Univ., USA

J. Geophys. Res. (USA), Vol. 79, No. 3, 430-4 (January 1974)

Coden: JGREA2

7. INFRARED WATER VAPOR AND TEMPERATURE PROFILER

Claysmith, C. R.

General Dynamics, San Diego Calif, Electro Dynamic Div Office of

Naval Research, Arlington, Va. Defense Supply Agency, San Diego, Calif

Rept No: R-74-056 (May 1974)

8. MILLIMETRE-WAVE RADIOMETRY AS A TOOL FOR REMOTE SENSING OF  
ATMOSPHERIC PARAMETERS

Croom, D. L.

SRC, Slough, England

Conference on Environmental Sensors and Applications, 135-44

London, England (November 1974)

9. EFFECT OF INCORRECT ATMOSPHERIC STATISTICS ON THE ACCURACY OF  
TEMPERATURE PROFILES DERIVED FROM SATELLITE MEASUREMENTS

Crosby, D. S.; Weinreb, M. P.

Nat. Envir. Sat. Services, NOAA, Washington, D. C.

J. Stat. Comput. and Simulation (GB), Vol. 3, No. 1, 41-51 (January 1974)

Coden: JSCSAJ

10. ATMOSPHERIC TRANSMITTANCE MODELS FOR INFRARED RADIOMETRIC MEASUREMENTS

Davis, Paul A.

Stanford Research Inst.

Final Report: SRI-2244, Contract: NOAA-3-35208 (March 1974)

11. REMOTE SOUNDING OF STRATOSPHERIC TEMPERATURES USING HIGH RESOLUTION  
RADIANCE MEASUREMENTS FROM THE IRIS-D

Gallery, W. O.

Chicago University.

Report No: NASA-CR-141130 (December 1974)

12. NIMBUS 4 OBSERVATIONS OF CHANGES IN TOTAL OZONE AND STRATOSPHERIC TEMPERATURE DURING A SUDDEN WARMING

Ghazi, A.

NASA, Greenbelt, MD., USA

J. Atmos. Sci. (USA) Vol. 31, No. 8, 2197-206 (November 1974)

Coden: JAHSAK

13. DETERMINATION OF INTEGRATED WATER CONTENT OF RAIN CLOUDS AND OF RAIN LAYER HEIGHT BY SUPER HIGH FREQUENCY RADIOMETER METHOD

Gorelick, A. G.; Kalashnikov, V. V.

Vinnichenko, N. K.; Gorelick, A. G. (Editors)

Advances in Satellite Meteorology, 58-64 (1974)

Pub: Israel Program For Sci. Translations, Jerusalem, Israel

14. THE SPECTRAL EMISSION OF THE ATMOSPHERE IN THE SUBMILLIMETRE BAND

Igoshin, F. F.; Kir'Yanov, A. P.; Kuzenkov, A. F.; Mozhaev, V. V.;

Rudakov, V. V.; Tulaikova, M. M.; Sheronov, A. A.

Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol 10.

No. 2, 206-9 (February 1974)

Trans In: Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys. (USA)

Coden: BSUAAZ

15. ON INFORMATION RELIABILITY OF SPECTRAL MEASUREMENTS OF HUMIDITY IN STRATOSPHERE AND MESOSPHERE

Kondratyev, K. YA.; Buznikov, A. A.; Kozlov, V. P.; Pokrovskiy, A. G.

Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol. 10, No. 10,

Coden: IFAOAV, 1041-53 (October 1974)

Trans In: Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys. (USA)

Coden: BSUAAZ

16. ON THE DISTRIBUTION OF WATER VAPOUR IN STRATO AND MESOSPHERES MEASURED BY MEANS OF SPACE VEHICLES

Kondratyev, K. Ya.; Buznikov, A. A.; Kozlov, V. P.; Pokrovsky, A. G.

Leningrad Univ., USSR

Acta Astronaut. (GB), Vol. 1, No. 12, 125-33 (January 1974)

Coden: AASTCF

17. THE CONTRIBUTION OF SATELLITES TO THE EXPLORATION OF THE GLOBAL ATMOSPHERE AND TO THE IMPROVEMENT OF WEATHER FORECASTING

Mason, B. J.

Meteorol. Mag. (GB), Vol.103, No.1224, 181-201, (July 1974)

Coden: MTMGA5

18. WATER VAPOR MEASUREMENTS IN THE LOWER STRATOSPHERE

Mastenbrook, H. J.

Naval Res. Lab., Washington, D.C. USA

Can J. Chem (Canada), Vol. 52, No. 8, Pt. 2, 1527 31 (April 1974)

Coden: CJCHAG

19. ITERATIVE RETRIEVAL AND STATISTICAL SPECIFICATION OF  
ATMOSPHERIC THICKNESSES FROM VTPR CLEAR COLUMN RADIANCE DATA

Moran, Douglas Ray (Masters Thesis) (March 1974)

Naval Postgraduate School

20. AN OCCULTATION SATELLITE SYSTEM FOR DETERMINING PRESSURE LEVELS IN  
THE ATMOSPHERE

Morrison, A. R.; Ungar, S. G.; Lusignan, B. B.

Stanford University, Calif.

Avial: NTIS, Springfield, Mass.

Report No. NASA-CR-1322436 (1974)

21. NIMBUS-5 SOUNDER DATA PROCESSING SYSTEM. PART I. MEASUREMENT  
CHARACTERISTICS AND DATA REDUCTION PROCEDURES

Smith, W. L.; Woolf, H. M.; Abel, P. G.; Hayden, C. M.; Chalfant, M.

Nat. Envir. Sat. Service, NOAA, Washington

Technical Memo. NOAA-TM-NESS-57 (June 1974)

22. NIMBUS-5 SOUNDER DATA PROCESSING SYSTEM. PART II. RESULTS

Smith, W. L.; Woolf, H. M.; Hayden, C. M.; Shen, W. C.

Nat. Envir. Sat. Serv., NOAA, Washington (USA)

Technical Memo. NOAA-TM-NESS-71 (June 1974)

23. CHARACTERISTICS AND DATA REDUCTION PROCEDURES

Smith, W. L.; Woolf, H. M.; Abel, P. G.; Hayden, C. M.;  
Chalfant, M.

Goddard, NASA, Greenbelt Md.; Nat. Envir. Sat. Service, Washington

Rept No: NOAA-TM-NESS-57 (June 1974)

24. A SENSITIVE TWO-FREQUENCY RADIOMETER FOR REMOTE SENSING OF TEMPERATURE PROFILES

Snider, J. B.

NOAA, Boulder, Colo., USA

Rev. Sci. Instrum. (USA), Vol. 45, No. 8, 981-4 (July 1974)

Coden: RSINAK

25. AN EMPIRICAL BAYES REGULARIZATION IN THE PROBLEM OF TEMPERATURE SOUNDING (OF THE ATMOSPHERE)

Sonechkin, D. M.

Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys. (USA)

Coden: BSUAAZ

26. STRATOSPHERIC WATER VAPOR UPPER LIMITS INFERRED FROM UPPER AIR OBSERVATIONS. I. NORTHERN HEMISPHERE

Stanford, J. L.

Nat. Center Atmospheric Res., Boulder, Colo., USA 1

Bull. Am. Meteorol. Soc. (USA), Vol. 55, No. 2, 194-212 (May 1974)

Coden: BAMIAT

27. DIRECT APPLICATION OF VTPR DATA

Valovcin, Francis R.

Air Force Cambridge Research Labs.

Rept No: AFCRL-TR-74-0591 (1974)

28. ON THE ESTIMATION OF LOW ALTITUDE WATER VAPOR PROFILES FROM GROUND BASED INFRARED MEASUREMENTS

Wang, J. Y.

General Dynamics, Calif., USA

J. Atmos. Sci. (USA), Vol. 31, No. 2, 1513 21 (March 1974)

Coden: JAHSAK

29. SATELLITE OBSERVATIONS OF ATMOSPHERIC WATER VAPOR

Wark, D. Q.; Lienesch, J. H.; Weinreb, M. P.

Nat. Envir. Sat. Serv., NOAA, Washington, DC USA

Appl. Opt. (USA), Vol. 13, No. 3, 507-11 (March 1974)

Coden: APOPAI

(1975)

1. RADIOMETRIC ATMOSPHERIC MEASUREMENTS

Astheimer, R. W.  
Barnes Engng. Co., Stamford, CT, USA  
Laser 75, Opto-Electronics Conference Proceedings, 235-9,  
Munich, Germany (June 1975)

2. THE ROUGHNESS LENGTH FOR WATER VAPOR, SENSIBLE HEAT, AND OTHER SCALARS

Brutsaert, W.  
Coll. of Engng., Cornell Univ., Ithaca, NY, USA  
J. Atmos. Sci. (USA), Vol. 32, No. 10, 2028-31 (October 1975)  
Coden: JAHS4K

3. HIGH-RESOLUTION SYSTEM FOR TROPOSPHERIC WIND AND TEMPERATURE PROFILE MEASUREMENTS

Camp. D. W.; Vaughan, W. W.  
Marshall Space Flight Center, NASA, Huntsville, AL, USA  
J. Geophys. Res. (USA) Vol. 80, No. 27, 3797-800 (September 1975)  
Coden: JGRE42

4. AN ANALYTICAL TRANSFORMATION FOR REMOTE SENSING OF CLEAR-COLUMN ATMOSPHERIC TEMPERATURE PROFILES

Chahine, M. T.  
Jet Propulsion Lab., California Inst. of Technology, Pasadena, CA. (USA)  
J. Atmos. Sci. (USA), Vol. 32, No. 10, 1946-1952 (October 1975)  
Coden: JAHS4K

5. USE OF INFRARED RADIANCE MEASUREMENTS IN DYNAMIC ANALYSIS

Davis, Paul A.  
Stanford Research Inst, Environmental Prediction Research Facility:  
EPRF-TR-10-75 (SRI) (October 1975)

6. TEST AND EVALUATION OF A VTPR RETRIEVAL SYSTEM FROM CLEAR COLUMN NOAA 2 RADIANCES

Dyck, Harry Milton Jr (Masters Thesis)  
Naval Postgraduate School, Monterey Calif. (March 1975)

7. THE VERTICAL DISTRIBUTION OF TRACE GASES IN THE STRATOSPHERE

Enhalt, D. H.; Heidt, LE; Lueb, R.H.; Pollock, W.  
Inst. Fur Atmospharische Chemie, Kernforschungsanlage  
Julich, Julich, Germany  
Pure and Appl Geophys. (Switzerland), Vol. 113, No. 3, 389-402 (1975)  
Coden: PAGYAV

8. THE ESTIMATION OF CLEAR SKY EMISSION VALUES FROM CLOUDY  
RADIOMETRIC DATA

Fowler, Mary Grace; Sze, Nien Dak; Gaut, Norman E.; Chang, David T.  
Environmental Research and Technology Inc, Air Force Cambridge  
Research Labs:  
Rept No: AFCEL-TR-75-0440 (August 1975)

9. TESTS AND EVALUATIONS OF CLRX, THE DIAGNOSIS OF CLEAR-COLUMN  
RADIANCES

Holl, Manfred M.  
Meteorology International Inc, Environmental Prediction Research Facility,  
Monterey, Calif  
Rept No: M-215, NEPRF-TR-12-75 (MII) (December 1975)

10. SELECTION OF OPTIMUM SPECTRAL RANGE FOR SATELLITE PROBING OF  
ATMOSPHERIC WATER VAPOUR

Ivanov, V. V.; Markov, M. N.  
Trans In: COSMIC RES. (USA), Vol. 13, No. 6, 744-51 (November 1975)

11. NEW METHODS FOR ATMOSPHERIC TEMPERATURE INVERSION

Kagiwade, H. H.; Kalaba, R. E.  
Rand Corp, NESS.  
Rept No: R-1810-DOC, Contract: C-5-35179 (NOAA) (October 1975)

12. HIGH RESOLUTION INFRARED RADIATION SOUNDER (HIRS) FOR THE NIMBUS  
SPACECRAFT

Koenig, E. W.  
ITT Aerospace, Ft. Wayne, Ind.  
Rept. No. NASA-CR-144743 (December 1975)

13. LATITUDINAL PROFILES OF STRATOSPHERIC WATER VAPOR

Kuhn, P. M.; Stearns, L. P.; Lojko, M. S.  
Atmospheric Phys. and Chem. Lab., NOAA Boulder, Co, USA  
Geophys. Res. Lett. (USA) Vol. 2, No. 6, 227-30 (June 1975)  
Coden: GPRLAJ

14. POSSIBILITY OF THE APPLICATION OF MEASUREMENTS OF DOWNWARD INFRARED RADIATION FOR DETERMING CHARACTERISTICS OF THE MOISTURE CONTENT IN THE ATMOSPHERE

Kuznetsov, A. D.; Timofeev, YU. M. (May 1975)  
Trans In: Izv. Acad. Sci. USSR Atmos. and Oceanic Phys.  
(USA) Coden: BSUAAZ

15. THE STRATOSPHERIC EVOLUTION OF SUDDEN WARMINGS IN 1969-74 DETERMINED FROM MEASURED INFRARED RADIATION FIELDS

Quiroz, R. S.  
NOAA, Washington, D. C. USA  
J. Atmos. Sci. (USA), Vol. 32, No. 1, 211-24 (January 1975)  
Coden: JAHSAK

16. SHAPE OF THE 5 MM OXYGEN BAND IN THE ATMOSPHERE

Rosenkranz, P. W.  
Mass. Institute of Technology, Cambridge, MA  
IEEE Trans. on Antennas and Propagation, Vol. AP-23, No. 4,  
pp 498-505  
(July 1975)

17. NIMBUS-5 SOUNDER DATA PROCESSING SYSTEM. PART 2: RESULTS

Smith, W. L.; Woolf, H. M.; Hayden, C. M.; Shen, W. C.  
Nat. Envir. Sat. Serv., NOAA, Washington (USA)  
Rept No: NASA-CR-146089; NOAA-75082801-PT-2 (July 1975)

18. MEASUREMENT OF THE MIXING RATIO PROFILE FOR WATER VAPOR AND NITROGEN DIOXIDE IN THE STRATOSPHERE

Snider, Donald E.  
Ballistic Research Labs Aberdeen Proving Ground MD.  
Final rept.  
Rept No: BRL 1835 (October 1975)

19. MICROWAVE ATMOSPHERIC TEMPERATURE SOUNDING: EFFECTS OF CLOUDS  
ON THE NIMBUS 5 SATELLITE DATA

Staelin, D. H.; Cassel, A. L.; Kunzi, K. F.; Pettyjohn, R. L.;  
Poon, R. K. L.; Rosenkranz, P. W.; Waters, J. W.  
Res. Lab. of Electronics, MIT, Cambridge, MA, USA  
J. Atmos. Sci (USA), Vol.32, No.10, 1970-6 (October 1975)  
Coden: JAHSAK

20. MEASUREMENT OF LOWER ATMOSPHERIC TEMPERATURE PROFILES FROM GROUND  
BASED INFRARED OBSERVATIONS

Wang, J. Y.; Claysmith, C. R.  
General Dynamics Convair Aerospace Div., San Diego, CA, USA  
J. Appl. Meteorol (USA), Vol. 14, No. 3, 308-18 (April 1975)  
Coden: JAMOAX

21. REMOTE SENSING OF ATMOSPHERIC TEMPERATURE PROFILES WITH  
THE NIMBUS 5 MICROWAVE SPECTROMETER

Waters, J. W.  
Jet Propulsion Lab., Pasadena, CA  
Kunzi, K. F.; Pettyjohn, R. L.; Poon, R. K. L.; Staehlin, D. H.  
Mass. Inst. of Tech., Cambridge, MA  
Journal of Atmospheric Science, Vol. 32, No. 10, pp 1953-69  
(October 1975)

(1976)

1. A COMPARISON BETWEEN NIMBUS 5 THIR AND ITPR TEMPERATURES AND DERIVED WINDS WITH RAWINSONDE DATA OBTAINED IN THE AVE 2 EXPERIMENT

Arnold, J. E.; Scoggins, J. R.; Fuelberg, H. E.  
Texas A&M University  
Rept No: NASA-CR-2757; M-180 (October 1976)

2. ANALYTICAL SOLUTION OF A MODEL RADIATIVE EQUATION ARISING IN ATMOSPHERIC SOUNDING

Barcilon, V.  
Dept. of Geophys. Sci., Univ. of Chicago, Chicago, IL, USA  
J. Quant. Spectrosc. and Radiat. Transfer (GB), Vol. 16, No. 12,  
1031-41 (December 1976)  
Coden: JQSRAE

3. OPERATIONAL-TYPE ANALYSES DERIVED WITHOUT RADIOSONDE DATA FROM NIMBUS 5 NOAA 2 TEMPERATURE SOUNDINGS

Bonner, William D.; Van Haaren, Robert; Hayden, Christopher M.  
National Meteorological Center NOAA, Washington  
Rept No: NOAA-TM-NWS-NMC-58 (March 1976)

4. ATMOSPHERIC TRANSMITTANCE STUDY WITH THE METEOROLOGICAL SATELLITE TECHNICAL AREA AT WHITE SANDS MISSILE RANGE. PART II. STUDIES RELATED TO THE INVERSION OF THE RADIATIVE TRANSFER EQUATION AND HIGH RESOLUTION TRANSMITTANCE CALCULATIONS

Bruce, Rufus E.; Pierluissi, Joseph H.; Weaver, Sandra K.  
Texas University  
Rept No: PR4-76-DC-30-PT-2 (October 1976)

5. AN ALGORITHM TO RETRIEVE WATER VAPOR INFORMATION FROM SATELLITE MEASUREMENTS

Crane, Robert K.  
Environmental Research and Technology Inc.  
Final rept.  
Rept. No. NEPRF-TR-7-76-(ERT) (November 1976)

6. TEMPERATURE AIR SOUNDING FROM SATELLITES IN THE RANGE OF 5 MM  
FOR THE DRY CLOUDLESS ATMOSPHERE

Drobyshevich, V. I.

Fiz Atmos. and Okeana, Vol. 12, No. 9, 906-11 (September 1976)  
Trans. In: Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys. (USA)  
Coden: BSUAAZ

7. REMOTE TEMPERATURE PROFILING IN THE LOWER TROPOSPHERE

Frankel, M. S.; Peterson, A. M.

Center Radar Astron., Stanford Univ., Stanford, CA, USA  
Radio Sci. (USA) Vol. 11, No. 3, 157-66 (March 1976)  
Coden: RASCAD

8. TEMPERATURE PROFILES DERIVED THROUGH THE INVERSION OF A SYSTEM OF  
FIRST ORDER DIFFERENTIAL EQUATIONS

Gatlin, J. A.; Englart, T. S.

Nasa Goddard Space Flight Center, NASA, Greenbelt, MD, USA  
Acta Astronaut, (GB), Vol. 4, No. 5-6, 749-68. (October 1976)  
Anaheim, Calif., USA

9. CERTAIN ACTUAL PROBLEMS IN THE THERMAL SOUNDING FROM A SATELLITE

Golovko, V. A.

Kanner Associates

Rept No: NASA-TT-F-17252 (October 1976)

10. REMOTE DETERMINATION OF ANOMALOUS PROFILES OF TEMPERATURE AND HUMIDITY  
IN THE ATMOSPHERE

Gurvich, A. S.; Ershov, A. T.

Izv. Akad. Nauk SSSR, Fiz. Atmos and Okeana, Vol 12, No. 12  
(December 1976)

Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys.

Coden: BSUAAZ

11. SOUNDER DESIGN CONSIDERATIONS IN THE SELECTION OF TEMPERATURE  
SENSING CHANNELS

Halem, M.; Ming-Dah Chow

Inst. For Space Studies, Goddard Space Flight Center, NASA,  
New York, NY, USA

J. Appl. Meteorol. (USA), Vol.15, No.4, 394-401 (April 1976)  
Coden: JAMOAX

12. THE USE OF THE RADIOSONDE IN DERIVING TEMPERATURE SOUNDINGS FROM  
THE NIMBUS AND NOAA SATELLITE DATA

Hayden, Christopher M.  
Nat. Envir. Sat. Serv., Washington, USA  
Rept No: NOAA-TM-NESS-76 (April 1976)

13. ON SELECTION OF THERMAL AND NON-THERMAL RADIOEMISSION AT SOUNDING OF  
EARTH FROM SATELLITES

Kachurin, L. G.; Poltinnikov, V. I.  
Izv. Akad. Nauk SSSR Fiz. Atmos. and Okeana Vol. 12, No. 9,  
947-52 (September 1976)  
Coden: IFAOAV

14. PROCEEDINGS OF THE SYMPOSIUM ON METEOROLOGICAL OBSERVATIONS FROM SPACE:  
THEIR CONTRIBUTION TO THE FIRST GARP GLOBAL EXPERIMENT,  
HELD AT PHILADELPHIA, PA. ON JUNE 8-10, 1976

Kelley, J. I.; Ruttenberg, S.  
National Center for Atmospheric Research.  
Rept No: NCAR-5101-76-1 (September 1976)

15. ON OPTIMIZATION OF CONDITION OF OUTGOING RADIATION MEASUREMENTS IN THE  
PROBLEM OF INDIRECT RETRIEVAL OF THE VERTICAL WATER VAPOUR PROFILE

Kozlov, V. P.; Timofeev, YU. M.; Kuznetsov, A. D.  
Trans In: Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys. (USA) (May 1976)  
Coden: BSUAAZ

16. STRATOSPHERIC AREAL DISTRIBUTION OF WATER VAPOR BURDEN AND THE JET  
STREAM

Kuhn, P. M.; Magaziner, E.; Stearns, L. P.  
Atmospheric Phys. and Chem. Lab., NOAA, Boulder, CO, USA  
Geophys, Res. Lett. (USA), Vol. 3, No. 9, 529-32 (September 1976)  
Coden: GPRLAJ

17. REMOTE TEMPERATURE INVERSION SENSOR

Malkmus, W.; Griggs, M.  
Science Applications, Inc., Energy Research and Development Administration  
Contract: EY-76-C-13-1664 (1976)

18. SATELLITE TEMPERATURE SOUNDING OF THE ATMOSPHERE: GROUND TRUTH ANALYSIS

McClatchey, Robert A.  
Air Force Geophysics Lab Hanscom AFB Mass  
Rept No: AFGL-TR-76-0279; AFGL-AFSG-356 (November 1976)

19. CLOUD TOP HEIGHTS FROM TEMPERATURE SOUNDING INSTRUMENTS

McCleese, D. J.; Wilson, L. S.  
Dept. of Atmospheric Phys., Oxford Univ., Oxford, England  
Q. J. R. Meteorol. Soc. (GB), Vol. 102, No. 434, 781-90 (October 1976)  
Coden: QJRMAM

20. ATMOSPHERIC TRANSMITTANCE OF AN ABSORBING GAS: A COMPUTATIONALLY FAST AND ACCURATE TRANSMITTANCE MODEL FOR ABSORBING GASES WITH CONSTANT MIXING RATIOS IN INHOMOGENEOUS ATMOSPHERES

McMillin, L. M.; Fleming, H. E.  
Nat. Environmental Satellite Service, NOAA, Washington, D. C. USA  
App. Opt. (USA) Vol. 15, No. 2, 358-63 (February 1976)  
Coden: APOPAI

21. ATMOSPHERIC WATER VAPOR MEASUREMENTS WITH AN INFRARED (10-MUM) DIFFERENTIAL ABSORPTION LIDAR SYSTEM

Murray, E. R.; Hake, R. D., Rf.; Van Der Laan, J. E.; Hawley, J. G.  
Stanford Res. Inst., Menlo Park, CA, USA  
Appl. Phys. Lett. (USA), Vol. 28, No. 9, 542-3 (May 1976)

22. INVESTIGATIONS OF THE FUNCTION OF RADIOPHOTONIC TEMPERATURE AND A GENERAL INVERSE PROBLEM OF SOUNDING FROM AN ARTIFICIAL EARTH SATELLITE OVER THE OCEAN

Nelepo, B. A.; Suetin, V. S.  
Morsk. Gidrofiz Issled (USSR), No. 2, 140-7 (1976)  
Coden: MGFIBM

23. RAMAN SCATTERING CROSS SECTIONS FOR WATER VAPOR

Penney, C. M.; Lapp, M.  
General Electric Corp., Res. and Dev., Schenectady, NY, USA  
J. Opt. Soc. AM. (USA), Vo. 66, No. 5, 422-5 (May 1976)  
Coden: JOSAAH

24. RECOVERY OF ATMOSPHERIC PARAMETERS FROM THE APOLLO/SOYUZ-ATS-F  
RADIO OCCULTATION DATA

Rangaswamy, S.  
Old Dominion Systems Inc., Gaithersburg, MD, USA  
Geophys. Res. Lett. (USA) Vol 3, No. 8, 483-6 (August 1976)  
Coden: GPRLAJ

25. RETRIEVAL OF ATMOSPHERIC TEMPERATURE AND COMPOSITION FROM REMOTE  
MEASUREMENTS OF THERMAL RADIATION

Rodgers, C. D.  
Nat. Center for Atmospheric Res., Boulder, Co, USA  
Rev. Geophys. and Space Phys. (USA), Vol.14, No.4, 609-24 (November 1976)  
Coden: RGPSBL

26. THE VERTICAL RESOLUTION OF REMOTELY SOUNDED TEMPERATURE PROFILES WITH  
A PRIORI STATISTICS

Rodgers, C. D.  
Nat. Center for Atmospheric Res., Boulder, CO, USA  
J. Atmos. Sci. (USA) Vol. 33, No. 4, 707-9 (April 1976)  
Coden: JAHSAK

27. ANALYSIS OF SATELLITE OBSERVED TROPICAL CLOUD CLUSTERS. II. THERMAL,  
MOISTURE AND PRECIPITATION

Ruprect, E.; Gray, W. M.  
Dept. of Atmospheric Sci., Colorado State Univ. Fort Collins, CO, USA  
Tellus (Sweden), Vo. 28, No. 5, 414-26 (1976)  
Coden: TELLAL

28. THE USE OF EIGENVECTORS OF STATISTICAL COVARIANCE MATRICES FOR  
INTERPRETING SATELLITE SOUNDING RADIOMETER OBSERVATIONS

Smith, W. L.; Woolf, H. M.  
Nat. Envir. Sat. Ser., NOAA Washington, DC  
J. Atmos. Sci. (USA), Vol. 33, No. 7, 1127-40 (July 1976)  
Coden: JAHSAK

29. COMPARISON OF 50-MILLIBAR GEOPOTENTIALS DERIVED FROM SATELLITE INFRARED  
SPECTROMETER READINGS WITH THOSE DERIVED FROM A SERIES OF ANALYZED  
CHARTS

Watson, N. R.; Bailey, V.  
Meteorol. Mag. (GB) Vol. 105, No. 1245, 105-9 (April 1976)  
Coden: MTMGA5

30. COMPARISON OF LAYER THICKNESS AS OBSERVED BY NIMBUS E MICROWAVE  
SPECTROMETER AND BY RADIOSONDE

Wilcox, R. W.; Sanders, F.

Dept. of Meteorology, MIT, Cambridge, MA, USA

J. Appl. Meteorol. (USA) Vol. 15, No. 9, 956-61 (September 1976)

Coden: JAMOAX

(1977)

1. DETERMINATION OF THE HEIGHT TEMPERATURE PROFILE FROM GROUND BASED  
RADIOMETRIC MEASUREMENT OF ATMOSPHERIC RADIATION

Aleshin, V. I.; Naumov, A. P.; Plechkov, V. M.; Sumin, M. I.;  
Troitskii, A. V.  
Izv. Vuz Radiofiz (USSR), Vol. 20, No. 2, 198-211 (1977)  
Coden: SORPAK

2. A FURTHER COMPARISON OF 50-MILLIBAR GEOPOTENTIALS OBTAINED FROM  
SATELLITE INFRA-RED SPECTROMETER SOUNDINGS AND ANALYSED CHARTS

Bailey, V.  
Meteorol. Mag. (GB), Vol. 106, No. 1259, 165-9 (June 1977)  
Coden: MTMGA5

3. A TWO-DIMENSIONAL SOUNDING TECHNIQUE FROM A BALLOON APPLICATION TO  
THE STUDY OF A STRATOSPHERIC SHALLOW LAYER

Cadet, D.; Bannerot, G.; Briott, B.  
Lab. De Meteorologie Dynie, CNRS, Palaiseau, France  
J. Appl. Meteorol. (USA), Vol. 16, No. 6, 662-7 (June 1977)  
Coden: JAMOAX

4. DETERMINATION OF THE OPTIMUM FIELD OF VIEW AND SPACING BETWEEN  
OBSERVATIONS FOR A SATELLITE-BORNE SCANNING RADIOMETER OBSERVING  
THE STRATOSPHERE

Campbell, S.; May, B.  
UK Meteorological Office, , England  
Remote Sensing Environ. (USA), Vol. 6, No. 3, 157-67 (1977)  
Coden: RSEEA7

5. REMOTE SOUNDING OF CLOUDY ATMOSPHERES. II. MULTIPLE CLOUD FORMATIONS

Chahine, M. T.  
Jet Propulsion Lab., California Inst. of Technology, Pasadena, CA, USA  
J. Atmos. Sci. (USA) Vol. 34, No. 5, 744-57 (May 1977)  
Coden: JAHSAK

1

6. REMOTE SOUNDING OF CLOUDY ATMOSPHERES:  
III. EXPERIMENTAL VERIFICATIONS

Chahine, M. T.; Aumann, H. H.; Taylor, F. W.  
Jet Propulsion Lab., Pasadena, CA  
Journal of Atmos. Sci., Vol. 34, No. 5, pp 758-65  
(May 1977)

7. REMOTE SENSING OF ATMOSPHERIC WATER VAPOR, LIQUID WATER AND  
WIND SPEED AT THE OCEAN SURFACE BY PASSIVE MICROWAVE TECHNIQUES  
FROM THE NIMBUS-5 SATELLITE

Chang, A. T. C.; Wilheit, T. T.  
Goddard SFC  
NASA, Greenbelt, MD  
NASA Technical Memorandum 79568  
(June 1977)

8. INVERSION METHODS IN ATMOSPHERIC REMOTE SOUNDING

Deepak, A.  
NASA  
Rept No: NASA-CP-004 (1977)

9. ZENITH ANGLE VARIATION OF SATELLITE THERMAL SOUNDER MEASUREMENT

Duncan, Louis D.  
Army Electronics Command, Fort Monmouth, NJ  
Rept No: ECOM-5828 (August 1977)

10. EVALUATION OF THE NOAA 4 VTPR THERMAL WINDS FOR NUCLEAR FALLOUT  
PREDICTIONS

Duncan, Louis D.; Seagraves, Mary Ann  
Army Electronics Command Fort Monmouth NJ  
Rept No: ECOM-5815 (March 1977)

11. TEMPERATURE RETRIEVALS FROM SATELLITE RADIANCE MEASUREMENTS-AN  
EMPIRICAL METHOD

Fritz, S.  
Meteorology Program, Univ. of Maryland, College, Park, MD, USA  
J. Appl. Meteorol. (USA), Vol. 16, No. 2, 172-6 (February 1977)  
Coden: JAMOAX

12. APPLICATION OF AN EFFICIENT METHOD FOR CALCULATING TRANSMITTANCE PROFILES

Gomez, R. B.; Potter, M. T.; Pierluissi, J. H.  
Atmospheric Sci. Lab., White Sands Missile Range, NM, USA  
Trolinger, J.; Moore, W.W. (Editors)  
Proceedings of the Society of Photo Optical Instrumentation  
Engineers, Vo. 125 Advances in Laser Technology for the Atmospheric  
Sciences 24-9, San Diego, CA. USA (August 1977)

13. SYNOPTIC-SCALE STUDIES USING THE NIMBUS 6 SCANNING MICROWAVE SPECTROMETER

Grody, N. C.; Pellegrino, P. P.  
Nat. Envir. Sat. Serv., NOAA, Washington, DC, USA  
J. Appl. Meteorol. (USA), Vol. 16, No. 8, 816-26 (August 1977)  
Coden: JAMOAX

14. DERIVING MESOSCALE TEMPERATURE AND MOISTURE FIELD FROM SATELLITE  
RADIANCE MEASUREMENTS OVER THE UNITED STATES

Hillger, D. W.; Vonderharr, T. H.  
Dept. Of Atmospheric Sci., Colorado State Univ., Fort Collins, CO, USA  
J. Appl. Meteorol. (USA), Vol. 16, No. 7, 715-26 (July 1977)  
Coden: JAMOAX

15. CALIBRATION OF INFRARED INSTRUMENTS FOR THE REMOTE SOUNDING OF  
ATMOSPHERIC TEMPERATURE

Houghton, J. T.  
Dept. of Atmospheric Phys., Oxfors Univ., Oxford, England  
Appl. Opt. (USA) Vol. 16, No. 2, 319-21 (February 1977)  
Coden: AOPAI

16. TEMPERATURE SENSING: THE DIRECT ROAD TO INFORMATION

Kaplan, L. D.  
The University of Chicago, Chicago, IL  
Inversion Methods in Atmospheric Remote Sounding, Academic Press,  
New York, NY  
(1977)

17. SPECTRAL BAND PASSES FOR A HIGH PRECISION SATELLITE SOUNDER

Kaplan, L. D.; Chahine, M. T.; Susskind, J.; Searl, J. E.  
Dept. of Geophys. Sci., Univ. of Chicago, Chicago, IL, USA  
Appl. Opt. (USA) Vol. 16, No. 2, 322-5 (February 1977)  
Coden: AOPAI

18. EFFECT OF CO<sub>2</sub> LINE WIDTH ON 15 MICROMETER ATMOSPHERIC EMISSION  
Kevel, B; Fleming, H. E; Planet, W. G.  
Avco Everett Res. Lab., Inc., Everett, MA, USA  
J. Quant. Spectrosc. and Radiat. Transfer (GB), Vol. 17, No. 2, 181-6  
(February 1977)  
Coden: JQSRAE

19. OBSERVATIONS OF STRATOSPHERIC THERMAL STRUCTURE FROM SATELLITES AND  
ATLAS OF STRATOSPHERIC THERMAL STRUCTURE  
Kleespies, T. J.  
Colorado State University, Fort Collins, Co.  
Environmental Research Papers, No. 8 (May 1977)

20. ON THE EFFECT OF SURFACE EMISSIVITY ON TEMPERATURE  
RETRIEVALS  
Kornfield, J.; Susskind, J.  
NASA Inst. for Space Studies, Goddard SFC, New York, NY  
Monthly Weather Rev., Vol. 105, No. 12, pp 1605-08  
(December 1977)

21. TEMPERATURE SOUNDINGS WITH PARTIALLY SCANNED INTERFEROGRAMS  
Kyle, T. G.  
US Nat. Center Atmospheric Res., Boulder, CO, USA  
Appl. Opt. (USA) Vol 16, No. 2, 326-33 (February 1977)  
Coden: APOPAI

22. REMOTE SENSING OF THE THICKNESS AND COMPOSITION OF CIRRUS CLOUDS FROM  
SATELLITES  
Liou, K. N.  
Dept. of Meteorology, Univ. of Utah, Salt Lake City, UT, USA  
J. Appl. Meteorol. (USA) Vol. 16, No. 1, 91-9 (January 1977)  
Coden: JAMOAX

23. ERROR ANALYSES OF OPERATIONAL SATELLITE SOUNDINGS OF VERTICAL  
TEMPERATURE PROFILES  
Mount, Wayne D.; Fow, B. Richard; Gustafson, Donald E.; Ledsham, William  
Geo Atmospherics Corp  
Rept No: GAC-78-CR-001, AFGL-TR-77-0248 (December 1977)

24. ATMOSPHERIC STRUCTURE DEDUCED FROM ROUTINE NIMBUS 6  
SATELLITE DATA

Moyer, V.; Scoggins, J. R.; Chou, N-M.; Wilson, G. S.  
Texas A & M University, College Station, TX  
Monthly Weather Rev., Vol. 106, pp 1340-52  
(September 1958)

25. OBJECTIVE ANALYSIS OF THE HUMIDITY FIELD IN THE ATMOSPHERE ACCORDING  
TO REMOTE SOUNDING DATA

Pokrovskii, O. M.; Ivanykin, E. E.  
Leningrad State Univ. Leningrad, USSR  
Trans In: Sov. Meteorol. and Hydrol. (USA), No. 2, 31-8 (1977)  
Coden: SMHYDK

26. SATELLITE BORNE MONITORING OF ATMOSPHERIC AND SURFACE CHARACTERISTICS  
AFFECTING THE PROPAGATION OF MICROWAVES IN THE TROPOSPHERE

Raschke, E.  
Univ. Zu-Koln, Koln Germany  
Albrecht, H. J. (Editor)  
Agard Conference Proceedings No. 208 EM Propagation Characteristics of  
Surface Materials and Interface Aspects, Agard, Neuilly Sur Seine,  
France (December 1977)

27. ROCKETBORNE MEASUREMENT OF MESOSPHERIC H<sub>2</sub>O IN THE AURORAL ZONE

Rogers, J. W.; Stair A. T. Jr.; Degges, T. C.; Wyatt, C. L.; Baker, K. J.  
Air Force Geophys. Lab., Bedford, MA, USA  
Geophys. Res. Lett. (USA), Vol. 4, No. 9, 366-8 (September 1977)  
Coden: GPRLAJ

28. A LASER METHOD OF OBSERVING SURFACE PRESSURE AND PRESSURE-ALTITUDE  
AND TEMPERATURE PROFILES OF THE TROPOSPHERE FROM SATELLITES

Smith, William L.; Platt, C. M. R.  
Nat. Envir. Sat. Serv., Washington (USA)  
Rept No: NOAA-TM-NESS-89 (July 1977)

29. MICROWAVE SPECTROSCOPIC IMAGERY OF THE EARTH

Staelin, D. H.; Rosenkranz, P. W.; Barath, F. T.;  
Johnson, E. J.; Waters, J. W.  
Science, Vol. 197, pp 991-93  
(September 1977)

30. ATMOSPHERIC MEASUREMENTS NEAR 118 GHz WITH PASSIVE MICROWAVE TECHNIQUES

Staelin, David H.; Rosenkranz, Philip W.; Cassel, Alan;  
McDonough, David; Steffes, Paul  
Massachusetts Inst of Tech Cambridge Research Lab of Electronics:  
Final Rept. AFGL-RR-78-0183 (December 1977)

31. POSSIBILITY OF DETERMINING TEMPERATURE INVERSION BY GROUND BASED LONG-RANGE SOUNDING OF THE ATMOSPHERE IN THE 5 MM O<sub>2</sub> ABSORPTION BAND

Sumin, MI; Troitskii, A. V.  
Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol. 13, No. 10 1090-4  
(October 1977)  
Coden: IFAOAV  
Trans In: Izv. Acad. Sci. USSR Atmos. and Oceanic Phys. USA  
Coden: BSUAAZ

32. NONLINEAR FUNCTIONS OF SATELLITE-MEASURED SPECTRAL RADIANCE AS ESTIMATORS OF TROPOPAUSE HEIGHT

Thompson, O. E.; Wolski, R. J.  
IBM Thomas Watson RE. Center, Yorktown Heights, NY, USA  
J. Appl. Meteorol. (USA), Vol. 16, No. 3, 281-9 (March 1977)  
Coden: JAMOAX

33. PRECIPITABLE WATER VAPOR IN ATMOSPHERES CHARACTERIZED BY TEMPERATURE INVERSIONS

Tomasi, C.  
Sezione Microfisica Dell Atmosfera, CNR. Bologna, Italy  
J. Appl. Meteorol. (USA), Vol. 16, No. 3, 237-43 (March 1977)  
Coden: JAMOAX

34. ATTENUATION OF INFRARED RADIATION THROUGH THE LOW ATMOSPHERE

Tomasi, C.; Vittori, O.  
Sezione Microfisica Atmosfera, Ifa Cnr, Bologna, Italy  
Mem. Soc. Astron. Ital. (Italy) Vol. 89, No. 1, 127-40 (March 1978)  
Proceedings of the conference on Infrared Astronomy 22-24  
Sept. 1977 Lecce, Italy  
Coden: MSATAB

35. TEMPERATURE SOUNDING FROM THE ABSORPTION SPECTRUM OF CO<sub>2</sub>  
AT 4.3 MICROMETERS

Toth, R. A.

Jet Propulsion Lab., California Inst. of Technol., Pasadena, CA, USA  
Appl. Opt. (USA), Vol. 16, No. 10, 2661-8 (October 1977)  
Coden: APOPAI

36. A COMPUTATIONAL METHOD FOR SPECTRAL MOLECULAR ABSORPTION USING  
AN IMPROVED VOIGT ALGORITHM

Van Derwook, Peter Clark (Masters Thesis)  
Texas University (May 1977)

37. A TECHNIQUE FOR ESTIMATING ATMOSPHERIC MOISTURE PROFILES FROM  
SATELLITE MEASUREMENTS

Weinreb, M. P.; Crosby, D. S.

Nat. Environmental Satellite Service, NOAA, Washington, DC USA  
J. Appl. Meteorol. (USA), Vol. 16, No. 11, 1214-18 (November 1977)  
Coden: JAMOAX

38. SENSITIVITY OF SATELLITE RETRIEVALS OF TEMPERATURE TO ERRORS  
IN ESTIMATES OF TROPOSPHERIC WATER VAPOR

Weinreb, M. P.

Nat. Envir. Sat. Serv., NOAA, Washington, DC USA  
J. Appl. Meteorol. (USA), Vol. 16, No. 6, 605-13 (June 1977)  
Coden: JAMOAX

39. EXPERIMENTAL INVESTIGATION OF THE NITROGEN-INDUCED BROADENING OF  
THE WATER VAPOR ABSORPTION LINE

Zuev. V. E.; Lopasov, V. P.; Tyryshkin, I. S.

Inst. Of Atmospheric Optics, Acad. of Sci., Tomsk, USSR  
Kvantovaya Elektron, Moskva (USSR), Vol 4, No. 6, 1375-7 (June 1977)  
Coden: SJQEAF

(1978)

1. INFRA-RED MEASUREMENTS OF STRATOSPHERIC COMPOSITION. I. THE BALLOON INSTRUMENT AND WATER VAPOUR MEASUREMENTS

Chaloner, C. P.; Drummond, J. R.; Houghton, J. T.; Jarnot, R. F.;  
Roscoe, H. K.

Dept. of Atmospheric Phys. Clarendon Lab., Oxford, England  
Proc. R. Soc. London Ser. A (GB), Vol. 368, No. 1717, 145-59 (1978)  
Coden: PRLAAZ

2. THE CHARACTERISTICS OF THE MICROWAVE RADIOMETRY USED IN REMOTE SENSING ATMOSPHERIC TEMPERATURE PROFILE

Chao Bo-Lin; Du Jun-Lin; Liu Shi Da; Yin Hong; Hu Ceng-Da; Wang Yi-Ju;  
Shi Shu-Min; Zhou Li-Zen; Sao Gen-Jin

Dept. of Geophys., Univ. Peking, Peking, China  
Acta Sci. Nat. Univ. Pekin. (China), No. 1, 89-98 (March 1978)  
Coden: PCTHAP  
Chinese Language

3. REMOTE SENSING ATMOSPHERIC SOUNDING OF THE CLOUDY ATMOSPHERE BY THE GROUND BASED MICROWAVE RADIOMETRY

Chao Bo Lin; Qun Yu  
Dept. of Geophys., Univ. of Peking, Peking, China  
Acta Sci. Nat. Univ. Pekin, (China), No. 4, 26-36 (1978)  
Coden: PCTHAP

4. AN INFRARED RADIATIVE TRANSFER MODEL

PART I: MODEL DESCRIPTION AND COMPARISON OF OBSERVATIONS WITH CALCULATIONS

Ellingson, R. G.  
Meteorology Program, University of Maryland, College Park, MD  
Gille, J. C.  
National Center for Atmospheric Research, Boulder, CO  
Journal of Atmospheric Science, Vol 35, No. 3 pp 523-45  
(March 1978)

5. ATMOSPHERIC ICE AND WATER CONTENT DERIVED FROM PARAMETERIZATION OF NIMBUS 6 HIGH-RESOLUTION INFRARED SOUNDER DATA

Feddes, R. G.; Kuo Nan Liou  
Dept. Of Meteorology, Univ. of Utah, Salt Lake City, UT, USA  
J. Appl. Meteorol. (USA), Vol. 17, No. 4, 536-51 (April 1978)  
Coden: JAMOAX

1

6. A FOUR BAND MILLIMETER WAVE RADIOMETER DESIGN FOR ATMOSPHERIC  
REMOTE SENSING

Goodwin, F. E.; Hersman, M. S.; Shiue, J. C.  
Hughes Aircraft Co., Space and Communications Group, Los Angeles, CA, USA  
1978 IEEE International Microwave Symposium Digest, 245-7 (June 1978  
Ottawa, Canada)  
Publ: IEEE, New York, USA

7. INFRARED REMOTE TEMPERATURE MEASUREMENTS ITS PHYSICS WITH REFERENCE TO  
COMPLEXITIES, APPROXIMATIONS AND LIMITATIONS INVOLVED. II.  
TEMPERATURE PROFILES RETRIEVAL

Gupta, R. K.  
Indian Inst. of Tropical Meteorology, Pune, India  
J. Indian Inst. Sci., Vol. 60, No. 10, 253-84 (October 1978)  
Coden: JIISAD

8. THE GISS SOUNDING TEMPERATURE IMPACT TEST

Halem, M.; Ghil, M.; Atlas, R.; Susskind, J.; Quirk, W. J.  
Goddard, NASA, Greenbelt, Md. (USA)  
Rept No: NASA-TM-78063 (January 1978)

9. THE ROLE OF SATELLITES IN THE TROPICAL OBSERVING SYSTEM

Houghton, J. T.  
Dept. of Atmospheric Phys., Oxford Univ., Oxford, England  
Shaw, D.B. (Editors)  
Meteorology Over the Tropical Oceans, 261-73, 21-25 (August 1978)  
Publ: Royal Meteorological Soc., Bracknell, England 1978

10. STRATOSPHERIC WATER VAPOUR MEASUREMENTS OVER AUSTRALIA 1973-1976

Hyson, P.  
Div. of Atmospheric Phys., Csiro, Aspendale, Victoria, Australia  
Q. J. R. Meteorol. Soc. (GB), Vol. 104, 225-8 (June 1978)  
Coden: QJRMAM

11. MICROWAVE BLACKBODY CALIBRATION OF THE TIROS-N MICROWAVE SOUNDER UNIT

Iwasaki, R. S.  
Jet Propulsion Lab., Pasadena, Ca, USA  
1978 IEEE MTT-S International Microwave Symposium Digest 248-51 (1978)  
27-29 (June 1978) Ottawa, Canada  
489 pp.

1

12. EXAMPLES OF HUMIDITY CHARACTERISTIC RETRIEVAL FROM SATELLITE  
OUTGOING THERMAL RADIATION MEASUREMENTS

Juznetsov, A. D.; Timofeev, YU. M.  
Leningrad State Univ., Leningrad, USSR  
Trans In: Sov. Meteorol. and Hydroli (USA), No. 9, 17-23 (1978)  
Coden: SMHYDK

13. IMPACT OF NIMBUS-6 TEMPERATURE SOUNDINGS ON AUSTRALIAN REGION FORECASTS

Kelly, G. A. M.; Mills, G. A.; Smith, W. L.  
Australian Numerical Meteorology Res. Centre, Melbourne, Australia  
Bull. Am. Meteorol. Soc. (USA), Vol. 59, No. 4, 893-405 (April 1978)  
Coden: BAMIAT

14. MODULATION RADIOMETER FOR 1.35 CM WAVELENGTH

Khrulev, V. V.; Samoilov, R. A.; Fedyantsev, B. K.; Zborovskii, V. S.;  
Larionova, L. F.  
Izv. Vuz Radiofiz. (USSR), Vol. 21, No. 2, 295-7 (1978)  
Coden: IVYRAY  
Trans In: Radiophys. and Quantum Electron. (USA)  
Coden: SORPAK

15. TEMPERATURE HEIGHT PROFILE DETERMINATION BY AIRCRAFT MEASUREMENTS OF  
THE OUTGOING RADIO EMISSION OF THE EARTH-ATMOSPHERE SYSTEM

Kitai, SH. D.; Sumin, M. I.; Troitskii, A. V.  
Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol. 14, No. 11, 1131-8  
(November 1978)  
Coden: IFAOAV  
Trans In: Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys (USA)  
Coden: BSUAAZ

16. CALCULATION OF THE IR ABSORPTION OF WATER VAPOUR IN A CONTINUUM

Knyazev, N. A.; Chavro, A. I.  
Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol. 14, No. 9, 994-6  
(September 1978)  
Coden: IFAOAV  
Trans In: Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys. (USA)  
Coden: BSUAAZ

1

17. THE DESIGN OF A MULTI-DETECTOR SPECTROMETER FOR THE INFRARED (ATMOSPHERIC TEMPERATURE SOUNDER)

Koch, D. G.; Aubrecht, J. A.  
Optical Res. Associates, Pasadena, Ca, USA  
Zimmerman, J.: Speake, G. (Editors)  
Proceedings of the Society of Photo-optical Instrumentation Engineers, Vol. 131, Practical Infrared Optics, 18-3 (January 1978)  
Los Angeles, Ca, USA  
Publ: Soc. Photo Optical Instrumentation Engrs., Bellingham, WA USA

18. ON ELIMINATION OF THE ATMOSPHERE INFLUENCE IN REMOTE SOUNDING OF SEA-SURFACE TEMPERATURE

Kozlov, V. P.  
Izv. Adad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol 14, No. 9, 974-82  
(September 1978)  
Coden: IFAOAV  
Trans In: Izv. Acad. Sci. USSR Atmos. and Oceanic Phys. USA  
Coden: BSUAAZ

19. ATMOSPHERIC SOUNDING USING MILLIMETER WAVE RADIOMETRY

Kunzi, K. F.; Meier, D.; Randegger, A.  
Inst. of App. Phys., Univ. of Berne, Berne, Switzerland  
Spitz, E. (Editors)  
Agard Conference Proceedings No. 245, Millimeter and Submillimeter Wave Propagation and Circuits (September 1978) Munich, Germany

20. AN EXTENDED KALMAN-BUCY FILTER FOR ATMOSPHERIC TEMPERATURE PROFILE RETRIEVAL WITH A PASSIVE MICROWAVE SOUNDER

Ledsham, W. H.; Staelin, D. H.  
Dept. of Electrical Engng. and Computer Sci., Mit. Cambridge, MA USA  
J. Appl. Meteorol. (USA), Vol. 17, No. 7, 1023-33 (July 1978)  
Coden: JAMOAX

21. OCEAN SURFACE MEASUREMENT USING ELEVATIONS FROM GEOS-3 ALTIMETER

Leitas, C. D.; Huang, N. E.  
NASA Wallop Flight Center, Wallops Is., VA  
Parra, C. G.  
EG&G, Pocomok City, MD  
J. Spacecraft, Vol. 15, No. 6, pp 362-67  
(November-Decemberd 1978)

22. EFFECT OF AEROSOL-CAUSED ATTENUATION OF THE ACCURACY OF THE  
REMOTE SENSING OF TEMPERATURES OF THE OCEAN AND ATMOSPHERE

Malkevich, M. S.; Petrenko, B. Z.  
Institute of Oceanology,  
USSR Academy of Sciences  
Izv. Atmos. and Oceanic Phys. (USA)  
Vol. 14, No. 7, pp 516-21  
(1978)

23. NEW RESULTS IN THE SATELLITE DETERMINATION OF THE TEMPERATURE  
PROFILE IN THE ATMOSPHERE

Molnar, G.  
Fiz. SZ (Hungary), Vol. 28, No. 10, 376-81 (October 1978)  
Coden: FISZA6

24. REMOTE MEASUREMENTS OF GASES USING DIFFERENTIAL-ABSORPTION  
LIDAR

Murray, E. R.  
SRI International, Menlo Park, CA  
Optical Engineering, Vol. 17, No. 1, pp 30-38  
(January-February 1978)

25. PROFILES BY LEAST-SQUARE METHODS

Nieuwstadt, F.  
Royal Netherlands Meteorological Inst., De Bilt, Netherlands  
Boundary Layer Meteorol. (Netherlands) Vol 14., No. 2, 235-46 (March 1978)  
Coden: BLMEBR  
Journal Paper

26. APPLICATION OF TWO GROUND-BASED MICROWAVE RADIOMETERS FOR INDIRECT DETER-  
MINATION OF THE TEMPERATURE PROFILE OF THE ATMOSPHERIC BOUNDARY LAYER

Schonwald, H.  
Meteorologisches Insti, Univ. of Hamburg, Hamburg, Germany  
Proceedings of the 8th European Microwave Conference, 38-42  
(September 1978) Paris, France  
Publ: Microwave Exhibitions and Publishers Ltd., Sevenoaks, England

27. ESTIMATES OF BRIGHTNESS TEMPERATURES FROM SCANNING  
RADIOMETRIC DATA

Stogryn, A.  
Aerojet Electro Systems Co., Azusa, CA  
IEEE Transactions on Antennas and Propagation, Vol. AP-26,  
No. 5, pp 720-726  
(September 1978)

28. TEMPERATURE EFFECT OF THE ATMOSPHERIC TRANSMISSION FUNCTION IN THE  
15-MICROMETER REGION

Wang, J. Y.  
General Dynamics Convair Div., San Diego, Ca, USA  
Opt. Lett. (USA) Vol. 2, No. 6, 169-71 (June 1978)  
Coden: OPLEDP

(1979)

1. SEASAT MISSION OVERVIEW

(A collection of reports, introduced by a synopsis by  
Born, G. H.; Dunne, J. A.; Lame, D. B.  
Jet Propulsion Lab., Pasadena, CA)  
Science, Vol. 204, pp 1405-1424  
(29 June 1979)

2. REMOTE SENSING OF ATMOSPHERIC WATER VAPOR, LIQUID WATER, AND WIND SPEED  
AT THE OCEAN SURFACE BY PASSIVE MICROWAVE TECHNIQUES FROM THE NIMBUS 5  
SATELLITE

Chang, A. T. C.; Wilheit, T. T.  
Goddard Space Flight Center, NASA Greenbelt, MD, USA  
Radio Sci. (USA), Vol. 14, No. 5, 793-02 (September 1979)  
Coden: RASCAD

3. THEORETICAL LINE SHAPE FOR  $H_2O$  VAPOR; APPLICATION TO THE  
CONTINUUM

Clough, S. A.; Kneizys, F. X.  
A. F. Geophysics Lab., Bedford, MA  
Davies, R.; Gamache, R.  
University of Lowell, Lowell, MA  
Tipping, R.  
University of Nebraska, Omaha, NE  
Proceedings of the Workshop on Water Vapor, Sept. 1979,  
Vail, CO, edited by Deepak, A.; Wilkerson, T. D.; Ruhnke, L. H.  
Academic Press  
(1979)

4. ANNUAL AND SEMIANNUAL WAVES IN THE TEMPERATURE OF THE MESOSPHERE  
AS DEDUCED FROM NIMBUS 6 PMR MEASUREMENTS

Crane, A. J.  
Clarendon Lab., Oxford, London, England  
Q. J. R. Meteorol. Soc. (GB), Vol. 105, No. 445, 509-20 (July 1979)  
Coden: QJRMAM

5. MEASUREMENT OF ATMOSPHERIC TEMPERATURE PROFILES USING RAMAN LIDAR

Gill, R.; Geller, K.; Farina, J.; Cooney, J.; Cohen, A.  
Phys. and Atmospheric Sci. Dept. Drexel Univ. Philadelphia, PA, USA  
J. Appl. Meteorol. (USA), Vol. 18, No. 2, 225-7 (February 1979)  
Coden: JAMOAX

6. PRELIMINARY EVALUATION OF INITIAL ATMOSPHERIC MOISTURE FROM  
THE TIROS-N SOUNDING SYSTEM

Gruber, A.; Watkins, C. D.

National Environmental Satellite Service, NOAA, Washington, D.D.  
Satellite Hydrology, Fifth Annual William T. Pecora Memorial  
Symposium, pp 115-123  
(June 1979)

7. A DUAL CHANNEL MICROWAVE RADIOMETER FOR MEASUREMENT OF PRECIPITABLE  
WATER VAPOR AND LIQUID

Guiraud, F. O.; Howard, J.; Hogg, D. C.

Environmental Res. Labs., NOAA, Boulder CO, USA  
IEEE Trans. Geosci. Electron (USA), Vol. GE-17, No. 4, 129-36 (October 1979)  
Coden: IEGEAO

8. APPLICATIONS OF ESTIMATION THEORY TO INVERSE PROBLEMS IN METEOROLOGY

Gustafson, D. E.; Ledsham, W. H.

Sci. Systems, Inc., Cambridge, MA, USA

Proceedings of the 1978 IEEE Conference on Decision and Control  
Including the 17th Symposium on Adaptive Processed 405, (January 1979)  
San Diego, CA, USA  
Publ: IEEE, New York, USA  
1461 pp.

9. AN ANALYSIS OF SATELLITE INFRARED SOUNDINGS AT THE MESOSCALE USING  
STATISTICAL STRUCTURE AND CORRELATION FUNCTIONS

Hillger, D. W.; Vonderhaar, T. H.

Dept. of Atmospheric Sci. Colorado State Univ., Fort Collins, CO, USA  
J. Atmos. Sci. (USA), Vol. 36, No. 2, 287-05 (February 1979)  
Coden: JAHSAK

10. KELVIN WAVES IN THE EQUATORIAL MIDDLE ATMOSPHERE OBSERVED BY THE  
NIMBUS 5 SCR

Hirota, I.

Geophys. Inst., Kyoto Univ., Kyoto, Japan

J. Atmos. Sci. (USA), Vol. 36, No. 2, 217-22, (February 1979)  
Coden: JAHSAK

11. HIGH RESOLUTION INFRARED RADIATION SOUNDER MOD 2 (HIRS 2)

Koenig, E. W.  
ITT Aerospace Optical Div.  
Final Project Report 1979  
Rept No: NASA-CR-160030 (August 1979)

12. ON THE OPTIMAL CONDITIONS OF OUTGOING RADIATION MEASUREMENTS ON THE CO<sub>2</sub> ABSORPTION BANDS AND THE ACCURACY OF THE THERMAL ATMOSPHERIC SOUNDING METHOD

Kozlov, V. P.; Timofeev, YU. M.  
Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol. 15, No. 12, 1253-61  
(December 1979)  
Coden: IFAOAV  
Trans In: Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys. USA  
Coden: BSUAZ

13. ATMOSPHERIC LIQUID-WATER CONTENT DERIVED FROM PARAMETERIZATION OF NIMBUS 6 SCANNING MICROWAVE SPECTROMETER DATA

Kuo-Nan Liou; Duff, A. D.  
Dept. of Meteorology, Univ. of Utah, Salt Lake City, UT, USA  
J. Appl. Meteorol. (USA), Vol. 18, No. 1, 99-03 (January 1979)  
Coden: JAMOAX

14. LONG DISTANCE MEASUREMENT OF THE METEOPARAMETERS OF A CLOUDY ATMOSPHERE BY RADIOMETRY

Kuznetsova, M. G.; Rassadovskii, VA; Troitskii, A. V.  
Sci. Res. Radiophys. Inst., USSR  
Trans In: Radiophys. and Quantum Electron, (USA), Vol. 22, No. 8, 651  
(August 1979)  
Coden: RPQEAC

15. FOURIER TRANSFORM METHOD FOR CALCULATING THE TRANSMITTANCE OF INHOMOGENEOUS ATMOSPHERES

Mankin, W. G.  
National Center for Atmospheric Research, Boulder, CO  
Applied Optics, Vol. 18, No. 20, pp 3426-33  
(15 October 1979)

16. STRATOSPHERIC TEMPERATURES AND GEOSTROPHIC WINDS DURING 1973-1974

McGregor, J.; Chapman, W. A.  
Dept. of Phys., Heriot-Watt Univ., Edinburgh, Scotland  
Q. J. R. Meteorol. Soc. (GB), Vol. 105, No. 443, 1-61 (January 1979)  
Coden: QHRMAM

17. AN ATMOSPHERIC TEMPERATURE PROFILE MEASURED WITH AN IN-SITU INFRARED RADIOMETER

McClatchey, R. A.; D'Agati, A. D.  
Air Force Geophysics Lab  
Rept No: AFGL-TR-79-0100; AFGL-ERP-661 (May 1979)

18. ATMOSPHERIC TRANSMITTANCE OF AN ABSORBING GAS. 3: A COMPUTATIONALLY FAST AND ACCURATE TRANSMITTANCE MODEL FOR ABSORBING GASES WITH VARIABLE MIXING RATIOS

Mc Millin, L. M.; Fleming, H. E.; Hill, M. L.  
National Environmental Satellite Services,  
NOAA, Washington, D.C.  
Applied Optics, Vol. 18, No. 10, pp 1600-06

19. INTERPRETATION OF NIMBUS 5 SCR DATA FOR OBTAINING VERTICAL TEMPERATURE PROFILES

Molnar, G. Y.  
Dept. of Atmospheric Phys., Univ. of Oxford, Oxford, England  
W. J. R. Meteorol. Soc. (GB), Vol. 105, No. 444, 461-7 (April 1979)  
Coden: QJRMAM

20. RETRIEVAL OF MASS-STRUCTURE INFORMATION FROM THE DEFENSE METEOROLOGICAL SATELLITE PROGRAM (DMSP) INDIRECT SOUNDING INSTRUMENT

Nagle, R. E.; Clark, J. R.  
Naval Environmental Prediction Research Facility, Monterey, CA  
(COSPAR) Remote Sounding of the Atmosphere from Space,  
Bolle, H. J. (Editor)  
Pergamon Press (1979)

21. IMPACT OF SATELLITE TEMPERATURE SOUNDING DATA ON WEATHER FORECASTS

Ohring, G.  
Dept. Of Geophys. and Planetary Sci., Tel Aviv Univ., Ramat Aviv, Israel  
Bull. AM. Meteorol. Soc. (USA), Vol. 60, No. 10, 1142-7 (October 1979)  
Coden: BAMIAT

22. VARIATIONAL SCHEME FOR ATMOSPHERIC TEMPERATURE RETRIEVAL

Palmer, T. N.  
Meteorological Office, Bracknell, England  
Q. J. R. Meteorol. Soc. (GB), Vol. 105, No. 446-03 (October 1979)  
Coden: QJRMAM

23. AN EVALUATION OF EARLY OPERATIONAL TEMPERATURE SOUNDINGS FROM TIROS-N  
Phillips, N.; McMillan, L.; Gruber, A.; Wark, D.  
National Meteorological Center, NOAA, Washington  
Bull. Amer. Met. Soc., Vol. 60, No. 10, 1188-97 (October 1979)

24. SIMULTANEOUS CLOUD COMPARISONS USING DIGITAL RADAR AND SATELLITE MEASUREMENTS  
Poellot, M. R.; Reynolds, D. W.  
Dept. of Aviation, Univ. of North Dakota, Grand Forks, ND, USA  
Space Instrumentation for Atmospheric Observation. IEEE Region V Annual Conference 86-91 (April 1979) El Paso, TX, USA

25. RAMAN LIDAR HUMIDITY SOUNDING OF THE ATMOSPHERIC BOUNDARY LAYER  
Pourny, J. C.; Orszag, A.; Renaut, D.  
Ensta, Lab. D'aoptique Appliquee, Palaiseau, France  
Appl. Opt. (USA) Vol. 18, No. 8, 1141-8 (April 1979)  
Coden: APOPAI

26. MEASUREMENTS OF ATMOSPHERIC ATTENUATION BY WATER VAPOUR  
Robson, E. I.; Rowan-Robinson, M.  
Div. Of Phys. and Astron., Preston Polytech., Preston England  
Infrared Phys. (GB), Vol. 19, No. 1, 115-20 (January 1979)  
Coden: INFPAD

27. MEASUREMENT OF TROPOSPHERIC INFRARED FLUXES  
Rouleau, M.  
Lab. De Meteorologie Dynamique, Ecole Polytech., Palaiseau France  
Rev. Phys. Appl. (France), Vol. 14, No. 1, 159-63 (January 1979)  
Coden: RPHAAN

28. THE SIMULTANEOUS INFERENCE OF STRATOSPHERIC NO<sub>2</sub>, H<sub>2</sub>O AND HNO<sub>3</sub>, CF<sub>2</sub>Cl<sub>2</sub> USING LIMB SOUNDING RADIOMETRY  
Russell, J. A. III; Gordley, L. L.  
Langley Res. Center, NASA Hampton, VA USA  
J. Atmos. Sci. (USA), Vol. 36, No. 11, 2259-66, (November 1979)  
Coden: JAHSAK

29. A PASSIVE MICROWAVE TECHNIQUE FOR PROFILING OF ATMOSPHERIC WATER VAPOR

Schaerer, G.; Wilheit, T. T.

Armament Technol. and Procurement Group, Bern, Switzerland

Radio Sci. (USA), Vol. 14, No. 3, 371-5 (June 1979)

Coden: RASCAD

30. THE USE OF INTERFEROMETRIC RADIANCE MEASUREMENTS FOR SOUNDING  
THE ATMOSPHERE

Smith, W. L.; Howell, H. B.; Woolf, H. M.

National Environmental Satellite Service, Madison, WI

Journal of Atmospheric Sciences, Vol. 36, pp 566-75

(April 1979)

31. THE TIROS N OPERATIONAL VERTICAL SOUNDER

Smith, W. L., Woolf, H. M.; Hayden, C. M.; Wark, D. Q.; McMillin, L. M.

Nat. Envir. Sat. Serv., NOAA, Madison, WI, USA

Bull. AM. Meteorol. Soc. (USA), Vol. 60, No. 10, 1177-87 (October 1979)

Coden: BAMIAT

32. VERTICAL DISTRIBUTION OF ABSOLUTE HUMIDITY AND MOISTURE CONTENT  
IN THE ATMOSPHERE OVER THE OCEANS

Timofeev, N. A.

Oceanographic Inst., USSR

Trans In: Sov. Meteorol. and Hydro (USA), No. 8, 45-61 (1979)

Coden: SMHYDK

33. DESCRIPTION OF SOME PROPERTIES OF THE HUMIDITY ANALYSIS SCHEME IN  
USE AT THE EUROPEAN CENTRE FOR MEDIUM RANGE WEATHER FORECASTS

Vanmaanen, J.

Royal Netherlands Meteorological Inst.

Rept No: KNMI V 334 (1979)

Sponsored by European Centre for Medium Range Weather Forecasts

34. AN ALGORITHM FOR RETRIEVAL OF OCEAN SURFACE AND ATMOSPHERIC  
PARAMETERS FROM THE OBSERVATIONS OF THE SCANNING MULTICHANNEL  
MICROWAVE RADIOMETER (SMMR)

Wilheit, T. T.; Chang, A. T. C.

Goddard SFC, NASA, Greenbelt, MD

NASA Technical Memorandum 80277

(May 1979)

35. COMPARATIVE STUDY OF INVERSION TECHNIQUES,  
PART I: ACCURACY AND STABILITY

Wolfson, N.; Joseph, J. H.; Mekler, Y.  
Tel Aviv University, Tel Aviv, Israel  
Journal of Appl. Meteorology, Vol. 18, pp 543-55  
(April 1979)

36. COMPARATIVE STUDY OF INVERSION TECHNIQUES,  
PART II: RESOLVING POWER, CONSERVATION OF NORMALIZATION  
AND SUPERPOSITION PRINCIPLES

Wolfson, N.; Mekler, Y.; Joseph, J. H.  
Tel Aviv University, Tel Aviv, Israel  
Journal of Appl. Meteorology, Vol. 18, pp 556-61  
(April 1979)

37. AN APPLICATION OF A GEOSTATIONARY SATELLITE RAIN ESTIMATION TECHNIQUE  
TO AN EXTRATROPICAL AREA

Wylie, D. P.  
Space Sci. and Engng. Center, Univ. of Wisconsin, Madison, WI, USA  
J. Appl. Meteorol. (USA), Vol. 18, No. 12, 1640-8 (December 1979)  
Coden: JAMOAX

38. LIDAR MEASUREMENTS OF ATMOSPHERIC HUMIDITY

Zakharov, V. M.; Kalachinskii, S. F.; Kostko, O. D.; Krikunov, G. A.;  
Zhiguleva, I. S.  
Trans In: Sov. Meteorol. and Hydrol. (USA), No. 8, 98-05 (1979)  
Coden: SMHYDK

39. THEORETICAL PROBLEMS OF INFRARED REMOTE SENSING OF THE ATMOSPHERE

Zeng Qingcun  
Inst. of Atmospheric Phys., Acad. of Sinica, Peking, China  
Sci. Sin. (China), Vo. 22, No. 5, 555-64 (May 1979)  
Coden: SSINAV

(1980)

1. ATMOSPHERIC SOUNDING NEAR 118 GHZ

Ali, A. D. S.; Rosenkranz, P. W.; Staelin, D. H.  
MIT, Cambridge, MA, USA  
J. Appl. Meteorol. (USA), Vol. 19, No. 10, 1234-8 (October 1980)  
Coden: JAMOAX

2. SKY RADIANCE AT WAVELENGTHS BETWEEN 7 AND 14 MICROMETER. MEASUREMENT,  
CALCULATION, AND COMPARISON WITH LOWTRAN 4 PREDICTIONS

Ben Shalom, A.; Barzilai, B.; Cabib, D.; Devir, A. D.; Lipson, S. G.;  
Oppenheim, U.P.  
Phys. Dept., Technion Israel Inst. of Technol., Haifa, Israel  
Appl. Opt. (USA), Vol. 19, No. 6, 838-9 (March 1980)  
Coden: APOPAI

3. COMPARISONS BETWEEN NIMBUS 6 SATELLITE AND RAWINSONDE SOUNDINGS  
FOR SEVERAL GEOGRAPHICAL AREAS

Cheng, N. M.; Scoggins, J. R.  
Texas A and M University  
Rept. No. NASA-RP-1073; M-330 (1981)

4. MEAN MERIDIONAL CIRCULATIONS OF THE STRATOSPHERE AND MESOSPHERE

Crane, A. J.; Haigh, J. D.; Phle, J. A.; Rogers, C. F.  
Pure and Appl. Geophys. (Switzerland), Vol. 118, No. 1, 307-2 (1980)  
Coden: PAGYA

5. VAS DEMONSTRATION SOUNDING WORKSHOP: THE PROCEEDINGS OF A SATELLITE  
SOUNDING WORKSHOP

Endres, D. L.; Uccellini, L. W.  
Goddard, NASA, Greenbelt, MD.  
Rept No: NASA-CP-2157 (July 1980)  
Conf. Held at Goddard Space Flight Center, Greenbelt, MD.

6. A POSSIBLE SCHEME FOR IMPROVING VERTICAL RESOLUTION AND ACCURACY  
OF SATELLITE TEMPERATURE RETRIEVAL

Gaoxiang, Zhao  
Academia Sinica, Beijing (China). Inst. of Atmospheric Physics  
Scientia Sinica, Vol 25, No. 5, 1019-24 (December 1980)

7. SOUNDING THE STRATOSPHERE AND MESOSPHERE BY INFRARED LIMB SCANNING FROM SPACE

Gille, J. C.; Bailey, P. L.; Craig, R. A.; House, F. B.; Anderson, G. P.  
Nat. Center for Atmospheric Res., Boulder, CO, USA  
Science (USA), Vol. 208, No. 4442, 397-9 (April 1980)  
Coden: SCIEAS

8. REFRACTION OF MICROWAVE SIGNALS BY WATER VAPOR

Goldfinger, A. D.  
Appl. Phys. Lab., Johns Hopkins Univ. Laurel, MD, USA  
J. Geophys. Res. (USA), Vol. 85, No. C9, 4908 12, (September 1980)  
Coden: JGREA2

9. ON CLIMATOLOGY, HYDROLOGY, ATMOSPHERIC RESEARCH AND METEOROLOGY (CHARM) FROM SPACE

Guyenne, T. D.  
European Space Agency, Paris (France) Dept. of Application Programmes  
National Aeronautics and Space Administration (NASA).  
Rept. No: ESA-SP-150 (February 1980)

10. DENSITY AND TEMPERATURE PROFILES OBTAINED BY LIDAR BETWEEN 35 AND 70 KM

Hauchecorne, A.; Chanin, M. L.  
Cnrs. Verrieres-Le-Buisson, France  
Geophys. Res. Lett. (USA), Vol. 7, No 8, 565-8 (August 1980)  
Coden: GPRLAJ

11. COMPARISON BETWEEN DIFFERENT RETRIEVAL METHODS FOR INFRARED REMOTE SOUNDING OF TEMPERATURE PROFILES AND ERROR ANALYSIS

Huang Rong-Hui; Yuan Chong-Guang  
Sci. Atmos. Sin. (China), Vol. 4, No. 1, 49-57 (March 1980)  
Coden: TKHSDX

12. CALIBRATION OF THE METEOSTAT IR CHANNEL BY GROUND MEASUREMENTS

Koepke, P.  
Meteorological Institute, University of Hamburg, Germany  
Contributions to Atmos. Phys., Vol. 53, No. 3, pp 442-45  
(August 1980)

13. VERTICAL PROFILES OF STRATOSPHERIC WATER VAPOUR

Louisnard, N.; Girard, A.; Eichen, G.

Onera, Chatillon, France

C. R. Hebd. Seances Acad. Sci Ser. B (France), Vol. 290, No. 15, 385-8  
(April 1980)

Coden: CHDBAN

14. SATELLITE WIND PROFILE TECHNIQUES

Mancuso, Robert L.; Endlich, Roy M.

SRI International, Naval Environmental Prediction Research Facility,  
Monterey, Calif.

Final Rept., NEPRF-CR-80-05 (December 1980)

15. MEASURING SEA SURFACE TEMPERATURE FROM SATELLITES: A GROUND  
TRUTH APPROACH

McConaghy, D.

Southwest Fisheries Center, NOAA, La Jolla, CA

Remote Sensing of Environment, Vol. 10, pp 307-10  
(1980)

16. ACCURACIES OF THREE COMPUTATIONALLY EFFICIENT ALGORITHMS FOR COMPUTING  
ATMOSPHERIC TRANSMITTANCES

McMillin, L. M.; Fleming, H. E. ; Arking A.; Chesters, D.

Nat. Envir. Sat. Serv., NOAA, Washington, DC, USA

Appl. Opt. (USA) Vol. 19 No. 14, 2267-8 (July 1980)

Coden: APOPAI

17. MESURE DE LA PRESSION ET DE LA TEMPERATURE ATMOSPHERIQUES PAR ABSORPTION  
DIFFERENTIELLE LIDAR: INFLUENCE DE LA LARGEUR D EMISSION LASER

Megie, G.

Service d Aeronomie du CNRS

Verrieres le Buisson, France

Applied Optics, Vol. 19, No. 1, pp 34-43  
(January 1980)

18. COMPLEMENTARITY OF UV AND IR DIFFERENTIAL ABSORPTION LIDAR FOR GLOBAL  
MEASUREMENTS OF ATMOSPHERIC SPECIES

Megie, G.; Menzies, R. T.

Jet Propulsion Lab., Pasadena, CA

Applied Optics, Vol. 19, No. 7, pp 1173-83  
(April 1980)

19. STRATOSPHERIC NO<sub>2</sub> AND H<sub>2</sub>O MIXING RATIO PROFILES FROM HIGH RESOLUTION INFRARED SOLAR SPECTRA USING NONLINEAR LEAST SQUARES

Niple, E.; Mankin, W. G.; Goldman, A.; Murcray, D. G.; Murcray, F. J.  
Nat. Center for Atmospheric Res., Boulder, CO, USA  
Geophys. Res. Lett. (USA), Vol. 7, No. 7, 489-92 (July 1980)  
Coden: GPRLAJ

20. QUANTITATIVE STUDIES OF METEOSAT WATER VAPOR CHANNEL DATA

Poc M. M.: Roulleau, M.; Scott, N. A.; Chedin, A.  
Lab. De Meteorologie Dynamique, Ecole Polytech., Palaiseau, France  
J. Appl. Meteorol. (USA), Vol. 19, No. 7, 868-76 (July 1980)  
Coden: JAMOAX

21. A TEST OF OBJECTIVE METEOROLOGICAL ANALYSIS WITH OPTIMUM UTILIZATION OF THE RADIOSONDE NETWORK IN CENTRAL EUROPE

Reimer, E.  
Freie Univ. Berlin, Germany  
Contrib. Atmos. Phys. (Germany), Vol. 53, No. 3, 311-35 (1980)  
Coden: BPYAAY

22. SPECIAL SENSOR H (SSH) MOISTURE SOUNDING

Savage, Richard C.  
Air Force Global Weather Central Offutt AFB NE.  
Rept No: AFGWC TN-80 001 (March 1980)

23. GLOBAL BRIGHTNESS TEMPERATURE SPECTRA AT HIGH WAVENUMBERS UTILIZING SATELLITE MICROWAVE MEASUREMENTS

Stanford, J. L.  
Phys. Dept., Iowa State Univ., Ames, IA, USA  
J. Atmos. Sci. (USA), Vol. 37, No. 5, 1070-6 (May 1980)  
Coden: JAHSAK

24. THE ERROR IN SATELLITE RETRIEVED TEMPERATURE PROFILES DUE TO THE EFFECTS OF ATMOSPHERIC AEROSOL PARTICLES

Stowe, L. L.; Fleming, H. E.  
Nat. Envir. Sat. Service, Washington, DC, USA  
Remote Sensing Environ., (USA), Vol. 9, No. 57-6, (February 1980)  
Coden: \$RSEEA

25. THE TIROS-N MICROWAVE SOUNDER UNIT

Swanson, P. N.; Harris, W. M.; Johnston, E. J.; Soltis, F. S.  
Jet Propulsion Lab., Pasadena, CA, USA  
Schwab, L.M.: Douglas, J.H. (Editors)  
Technology Growth for the 80s. 1980 IEEE MTT-S International Microwave  
Symposium Digest, 123-5 (May 1980) Washington, DC, USA  
Publ: IEEE, New York, NY

26. A COMPARISON OF SHIP AND SATELLITE MEASUREMENTS OF SEA  
SURFACE TEMPERATURES OFF THE PACIFIC COAST OF CANADA

Tabata, S.; Gower, J. F. R.  
Inst. of Ocean Sciences, Sidney, BC, Canada  
Jour. of Geophys. Res., Vol. 85, No. C11, pp 6636-48,  
(November 20, 1980)

27. GROUND BASED MICROWAVE RADIOMETRIC RETRIEVAL OF PRECIPITABLE WATER  
VAPOR IN THE PRESENCE OF CLOUDS WITH HIGH LIQUID CONTENT

Westwater, E. R.; Guiraud, F. O.  
Environmental Res. Labs., NOAA, Boulder, CO, USA  
Radio Sci. (USA), Vol. 15, No. 5, 947-57 (September 1980)  
Coden: RASCAD

28. AN ALGORITHM FOR RETRIEVAL OF OCEAN SURFACE AND ATMOSPHERIC PARAMETERS  
FROM THE OBSERVATIONS OF THE SCANNING MULTICHANNEL MICROWAVE RADIOMETER

Wilheit, T. T.; Chang, A. T. C.  
Goddard Space Flight Center, NASA, Greenbelt, MD, USA  
Radio Sci. (USA) Vol. 15, No. 3, 525-44 (June 1980)  
Coden: RASCAD

(1981)

- 1 INVERSION OF GROUND BASED RADIOMETRIC DATA BY KALMAN FILTERING  
Basilis, P.; Ciotti, P.; Solimini, D.  
Facolta Di Ingegneria, Univ. Di Roma, Rome, Italy  
Radio Sci. (USA), Vol 16, No. 1, 83-91 (January 1981)
- 2 COMPARISONS BETWEEN NIMBUS 6 SATELLITE AND RAWINSONDE SOUNDINGS FOR SEVERAL GEOGRAPHICAL AREAS  
Cheng, N. M.; Scoggins, J. R.; Texas A and M University  
Rept No. NASA-RP-1073; M-330 (1981)
3. DETERMINATION OF MOISTURE FROM NOAA POLAR ORBITING SATELLITE SOUNDING RADIANCES  
Hayden, C. M.; Smith, W. L.; Woolf, H. M.  
National Earth Satellite Service, NOAA, Madison, WI  
Jour. of Appl. Meteorology, Vol. 20, No. 4, pp 450-66  
(April 1981)
4. ATMOSPHERIC STRUCTURE DETERMINED FROM SATELLITE DATA  
Knight, Keith Shelburne; Scoggins, James R.  
Texas A and M, NASA Hdqt. Washington.  
Grant: DAAG29-76-G-0078 (January 1981)
5. REVIEW OF THE RADIANCE DISTRIBUTION IN THE UPPER MESOSPHERE AS OBSERVED FROM THE NIMBUS 6 PRESSURE MODULATOR RADIOMETER (PMR)  
Labitzke, K.; Barnett, J. J.  
Inst. For Meteorology, Freie Univ. Berlin, Berlin, Germany  
Planet. and Space Sci. (GB), Vol. 29, No. 6, 673-85 (June 1981)  
Coden: PLSSAE
6. DETECTION OF CLEAR AIR TURBULENCE BY WATER VAPOR EMISSION ANOMALIES: WEIGHTING FUNCTIONS AND SENSITIVITIES  
Platt, C. M. R.  
CSIRO Div. of Atmos. Phys.  
Mordialloc, Victoria, Australia  
Applied Optics, Vol. 20, No. 14, pp 2510-18  
(15 July 1981)

7. REMOTE SENSING OF PRECIPITABLE WATER OVER THE OCEANS FROM NIMBUS-7  
MICROWAVE MEASUREMENTS

Prabhakara, C.; Chang, H. D.; Chang, A. T. C.  
Goddard SFC, Greenbelt, MD  
NASA Technical Memorandum 82117  
(April 1981)

8. ATMOSPHERIC MICROWAVE THERMAL EMISSION IN PRESENCE OF A PRECIPITATING  
CLOUD AT 9.34, 33.1 AND 94 GHZ

Richter, B.  
Meteorologisches Inst. Univ. Hamburg, Hamburg, Germany  
Contrib. Atmos. Physi (Germany), Vol. 54, No. 1, 123-35 (1981)  
Coden: BPYAAAY

9. TEMPERATURE PROFILING BY RAYLEIGH SCATTERING LIDAR

Schwiesow, R. L.; Lading, L.  
Environmental Research Labs., NOAA, Boulder, CO  
Applied Optics, Vol. 20, No. 11, pp 1972-79  
(1 June 1981)

10. FIRST SOUNDING RESULTS FROM VAS-D

Smith, W. L.; Wolf, H. M.; Hayden, C. M.  
National Earth Satellite Service, NOAA, Madison, WI  
Suomi, V. E.; Menzel, W. P.; Sromovsky, L. A.; Reversomb, H. E.;  
Erickson, D. N.; Mosher, F. R.  
Space Science and Eng. Center  
University of Wisconsin, Madison, WI  
Bull. American Meteorological Society, Vol. 62, No. 2, pp 232-36  
(February 1981)

11. VERTICAL MASS AND MOISTURE STRUCTURE FROM TIROS-N

Smith, W. L.; Nagle, F. W.; Handen, C. M.; Woolf, H. M.  
National Earth Satellite Service, University of Wisconsin,  
Madison, WI  
Bull. Am. Meteorological Soc., Vol. 62, No. 3, pp 388-93  
(March 1981)

12. RADIOMETER FOR REMOTE SOUNDING OF THE UPPER ATMOSPHERE

Taylor, F. W.; Houghton, J. T.; Peskett, G. D.; Rodgers, C. D.;  
Williamson, E. J.  
Oxford Univ., England  
Appl. Opt. (USA), Vol. 11, No. 1, 135-41 (January 1981)  
Coden: APOPAI

13. THE USE OF SMOOTHING SPLINES FOR RESTORATION OF THE H<sub>2</sub>O  
ABSORPTION MOLECULAR COEFFICIENT PROFILE

Voskoboinikov, YU.E.; Mitsel, A. A.  
Trans from: Izv. Acad. Sci. USSR Atmos. and Oceanic Phys. (USA)  
(February 1981)  
Coden: BSUAAZ

14. TRANSMITTANCES FOR THE TIROS OPERATIONAL VERTICAL SOUNDER

Weinreb, M. P.; Fleming, H. E.; McMillin, L. M.; Neuendorffer, A. C.  
Nat. Earth Sat. Service  
NOAA, Washington, D. C.  
NOAA Technical Rept. NESS 85  
(September 1981)

15. ATMOSPHERIC SOUNDING USERS' GUIDE

Werbowski, A., Editor  
Nat. Earth Sat. Service  
NOAA, Washington, D.C.  
NOAA Technical Rept. NESS-83  
(April 1981)

16. THE UNITED STATES OPERATIONAL POLAR-ORBITING SATELLITE SERIES,  
TIROS-N

Yates, H.  
Office of Res., Nat. Env. Sat. Service, Washington, D.C.  
Adv. Space Research, Vol. 1, pp 57-71  
(COSPAR, 1981)

17. THE PRINCIPLE AND TESTS OF MICROWAVE REMOTE SENSING ATMOSPHERIC  
SOUNDING

Zhao Bolin; Yin Hong; Li Huixin; Du Jinlin; Hu Chengda; Zhu Yuanjing  
Dept. of Geophys., Peking Univ., Peking, China  
Sci. Sin. (China), Vol. 24, No. 3, 363-73 (March 1981)  
Coden: SSINAV



SECTION 2: REFERENCED BY SUBJECT

H<sub>2</sub>O VAPOR IR MEASUREMENTS

1. ON THE ESTIMATION OF RELATIVE HUMIDITY PROFILES FROM MEDIUM RESOLUTION INFRARED SPECTRA OBTAINED FROM A SATELLITE

Conrath, B. J.  
Goddard, NASA, Greenbelt, Md.  
Report No.: NASA-TM-X-6G256 (June 1968)

2. ON THE ESTIMATION OF RELATIVE HUMIDITY PROFILES FROM MEDIUM RESOLUTION INFRARED SPECTRA OBTAINED FROM A SATELLITE

Conrath, B. J.  
Goddard, NASA, Greenbelt, MD., USA  
J. Geophys. Res. (USA), Vol. 74, No. 13, 3347-61 (June 1969)

3. ON THE DISTRIBUTION OF WATER VAPOUR IN STRATO AND MESOSPHERES MEASURED BY MEANS OF SPACE VEHICLES

Kondratyev, K. Ya.; Buznikov, A. A.; Kozlov, V. P.; Pokrovsky, A. G.  
Leningrad Univ., USSR  
Acta Astronaut. (GB), Vol. 1, No. 12, 125-33 (January 1974)  
Coden: AASTCF

4. WATER VAPOR MEASUREMENTS IN THE LOWER STRATOSPHERE

Mastenbrook. H. J.  
Naval Res. Lab., Washington, D.C. USA  
Can J. Chem (Canada), Vol. 52, No. 8, Pt. 2, 1527 31 (April 1974)  
Coden: CJCHAG

5. ON THE ESTIMATION OF LOW ALTITUDE WATER VAPOR PROFILES FROM GROUND BASED INFRARED MEASUREMENTS

Wang, J. Y.  
General Dynamics, Calif., USA  
J. Atmos. Sci. (USA), Vol. 31, No. 2, 1513 21 (March 1974)  
Coden: JAHSAK

6. LATITUDINAL PROFILES OF STRATOSPHERIC WATER VAPOR

Kuhn, P. M.; Stearns, L. P.; Lojko, M. S.  
Atmospheric Phys. and Chem. Lab., NOAA Boulder, Co, USA  
Geophys. Res. Lett. (USA) Vol. 2, No. 6, 227-30 (June 1975)  
Coden: GPRLAJ

7. A TECHNIQUE FOR ESTIMATING ATMOSPHERIC MOISTURE PROFILES FROM SATELLITE MEASUREMENTS

Weinreb, M. P.; Crosby, D. S.

Nat. Environmental Satellite Service, NOAA, Washington, DC USA

J. Appl. Meteorol. (USA), Vol. 16, No. 11, 1214-18 (November 1977)

Coden: JAMOAX

8. EXPERIMENTAL INVESTIGATION OF THE NITROGEN-INDUCED BROADENING OF THE WATER VAPOR ABSORPTION LINE

Zuev. V. E.; Lopasov, V. P.; Tyryshkin, I. S.

Inst. Of Atmospheric Optics, Acad. of Sci., Tomsk, USSR

Kvantovaya Elektron, Moskva (USSR), Vol 4, No. 6, 1375-7 (June 1977)

Coden: SJQEAF

9. INFRA-RED MEASUREMENTS OF STRATOSPHERIC COMPOSITION. I. THE BALLOON INSTRUMENT AND WATER VAPOUR MEASUREMENTS

Chaloner, C. P.; Drummond, J. R.; Houghton, J. T.; Jarnot, R. F.;  
Roscoe, H. K.

Dept. of Atmospheric Phys. Clarendon Lab., Oxford, England

Proc. R. Soc. London Ser. A (GB), Vol. 368, No. 1717, 145-59 (1978)

Coden: PRLAAZ

10. ATMOSPHERIC ICE AND WATER CONTENT DERIVED FROM PARAMETERIZATION OF NIMBUS 6 HIGH-RESOLUTION INFRARED SOUNDER DATA

Feddes, R. G.; Kuo Nan Liou

Dept. Of Meteorology, Univ. of Utah, Salt Lake City, UT, USA

J. Appl. Meteorol. (USA), Vol. 17, No. 4, 536-51 (April 1978)

Coden: JAMOAX

11. STRATOSPHERIC WATER VAPOUR MEASUREMENTS OVER AUSTRALIA 1973-1976

Hyson, P.

Div. of Atmospheric Phys., Csiro, Aspendale, Victoria, Australia

Q. J. R. Meteorol. Soc. (GB), Vol. 104, 225-8 (June 1978)

Coden: QJRMAM

12. EXAMPLES OF HUMIDITY CHARACTERISTIC RETRIEVAL FROM SATELLITE OUTGOING THERMAL RADIATION MEASUREMENTS

Juznetsov, A. D.; Timofeev, YU. M.

Leningrad State Univ., Leningrad, USSR

Trans In: Sov. Meteorol. and Hydrol (USA), No. 9, 17-23 (1978)

Coden: SMHYDK

13. CALCULATION OF THE IR ABSORPTION OF WATER VAPOUR IN A CONTINUUM

Knyazev, N. A.; Chavro, A. I.  
Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol. 14, No. 9, 994-6  
(September 1978)  
Coden: IFAOAV  
Trans In: Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys. (USA)  
Coden: BSUAAZ

14. THEORETICAL LINE SHAPE FOR H<sub>2</sub>O VAPOR; APPLICATION TO THE  
CONTINUUM

Clough, S. A.; Kneizys, F. X.  
A. F. Geophysics Lab., Bedford, MA  
Davies, R.; Gamache, R.  
University of Lowell, Lowell, MA  
Tipping, R.  
University of Nebraska, Omaha, NE  
Proceedings of the Workshop on Water Vapor, Sept. 1979,  
Vail, CO, edited by Deepak, A.; Wilkerson, T. D.; Ruhnke, L. H.  
Academic Press  
(1979)

15. PRELIMINARY EVALUATION OF INITIAL ATMOSPHERIC MOISTURE FROM  
THE TIROS-N SOUNDING SYSTEM

Gruber, A.; Watkins, C. D.  
National Environmental Satellite Service, NOAA, Washington, D.D.  
Satellite Hydrology, Fifth Annual William T. Pecora Memorial  
Symposium, pp 115-123  
(June 1979)

16. VERTICAL PROFILES OF STRATOSPHERIC WATER VAPOUR

Louisnard, N.; Girard, A.; Eichen, G.  
Onera, Chatillon, France  
C. R. Hebd. Seances Acad. Sci Ser. B (France), Vol. 290, No. 15, 385-8  
(April 1980)  
Coden: CHDBAN

17. QUANTITATIVE STUDIES OF METEOSAT WATER VAPOR CHANNEL DATA

Poc M. M.: Roulleau, M.; Scott, N. A.; Chedin, A.  
Lab. De Meteorologie Dynamique, Ecole Polytech., Palaiseau, France  
J. Appl. Meteorol. (USA), Vol. 19, No. 7, 868-76 (July 1980)  
Coden: JAMOAX

18. SPECIAL SENSOR H (SSH) MOISTURE SOUNDING

Savage, Richard C.

Air Force Global Weather Central Offutt AFB NE.  
Rept No: AFGWC TN-80 001 (March 1980)

19. DETERMINATION OF MOISTURE FROM NOAA POLAR ORBITING SATELLITE SOUNDING RADIANCES

Hayden, C. M.; Smith, W. L.; Woolf, H. M.

National Earth Satellite Service, NOAA, Madison, WI  
Jour. of Appl. Meteorology, Vol. 20, No. 4, pp 450-66  
(April 1981)

20. VERTICAL MASS AND MOISTURE STRUCTURE FROM TIROS-N

Smith, W. L.; Nagle, F. W.; Handen, C. M.; Woolf, H. M.  
National Earth Satellite Service, University of Wisconsin,  
Madison, WI

Bull. Am. Meteorological Soc., Vol. 62, No. 3, pp 388-93  
(March 1981)

### H<sub>2</sub>O VAPOR MICROWAVE MEASUREMENTS

1. ON THE DETERMINATION OF VERTICAL HUMIDITY PROFILES IN THE ATMOSPHERE BY MEASURING THE EARTH'S RADIATION FROM SATELLITES

Gorchakova, I. A.; Demin, V. V.; Ershov, A. T.

Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol. 7, No. 8, 841-7,  
(August 1971)

Coden: IFAOAV

Trans. In: Bull. Acad. Sci USSR, Atmospheric and Ocean Physics Ser. (USA)

Coden: BSUAAZ

2. EXAMPLES OF DETERMINATION OF THE VERTICAL HUMIDITY PROFILE ACCORDING TO GROUND MEASUREMENTS OF ATMOSPHERIC THERMAL RADIOEMISSION AT H<sub>2</sub>O ABSORPTION LINE  $\lambda=1.35$  CM

Gorchakova, I. A.; Malkevich, M. S.; Naumov, A. P.; Plechkov, V. M.

Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol. 7, No. 7, 731-6 (May 1971)

Coden: IFAOAY

Trans In: Bull. Acad. Sci USSR, Atmos. and Ocean Phys. Ser (USA)

Coden: BSUAAZ

3. DETERMINATION OF VERTICAL PROFILE OF HUMIDITY FROM GROUND BASED PASSIVE PROBING MEASUREMENTS OF THE ATMOSPHERIC ABSORPTION

Ershov, A. T.; Naumov, A. P.; Plechkov, V. M.  
Izv. Vuz Radiofiz. (USSR), Vol. 15, No. 4, 510-16 (1972)  
Coden: IVYRAY  
Trans In: Radiophys. and Quantum Electron (USA)  
Coden: SORPAK

4. EVALUATION OF THE CHARACTERISTICS OF THE VERTICAL DISTRIBUTION OF MOISTURE IN THE ATMOSPHERE USING SATELLITE MEASUREMENTS

Boldyrev, V. G.; Gurvich, A. S.; Dombkovskaya, E. P.; Krasilnikova, T. G.  
Foreign Technology Div., Wright Patterson AFB, Ohio  
Rept No: FTD-HT-23-368-73 (June 1973)

5. THE DETERMINATION OF THE GENERAL MOISTURE CONTENT OF THE ATMOSPHERE FROM ITS INTRINSIC RADIO FREQUENCY EMISSION

Gorelik, A. G.; Kalashnikov, V. V.; Frolov, Yu. A.  
Foreign Technology Div Wright Patterson AFB Ohio:  
Rept No: FTD-MT-24-698-73 (August 1973)

6. REMOTE SENSING OF ATMOSPHERIC WATER VAPOR, LIQUID WATER AND WIND SPEED AT THE OCEAN SURFACE BY PASSIVE MICROWAVE TECHNIQUES FROM THE NIMBUS-5 SATELLITE

Chang, A. T. C.; Wilheit, T. T.  
Goddard SfC  
NASA, Greenbelt, MD  
NASA Technical Memorandum 79568  
(June 1977)

7. MODULATION RADIOMETER FOR 1.35 CM WAVELENGTH

Khrulev, V. V.; Samoilov, R. A.; Fedyantsev, B. K.; Zborovskii, V. S.;  
Larionova, L. F.  
Izv. Vuz Radiofiz. (USSR), Vol. 21, No. 2, 295-7 (1978)  
Coden: IVYRAY  
Trans In: Radiophys. and Quantum Electron. (USA)  
Coden: SORPAK

8. REMOTE SENSING OF ATMOSPHERIC WATER VAPOR, LIQUID WATER, AND WIND SPEED AT THE OCEAN SURFACE BY PASSIVE MICROWAVE TECHNIQUES FROM THE NIMBUS 5 SATELLITE

Chang, A. T. C.; Wilheit, T. T.  
Goddard Space Flight Center, NASA Greenbelt, MD, USA  
Radio Sci. (USA), Vol. 14, No. 5, 793-02 (September 1979)  
Coden: RASCAD

9. A DUAL CHANNEL MICROWAVE RADIOMETER FOR MEASUREMENT OF PRECIPITABLE WATER VAPOR AND LIQUID

Guiraud, F. O.; Howard, J.; Hogg, D. C.  
Environmental Res. Labs., NOAA, Boulder CO, USA  
IEEE Trans. Geosci. Electron (USA), Vol. GE-17, No. 4, 129-36 (October 1979)  
Coden: IEGEAO

10. ATMOSPHERIC LIQUID-WATER CONTENT DERIVED FROM PARAMETERIZATION OF NIMBUS 6 SCANNING MICROWAVE SPECTROMETER DATA

Kuo-Nan Liou; Duff, A. D.  
Dept. of Meteorology, Univ. of Utah, Salt Lake City, UT, USA  
J. Appl. Meteorol. (USA), Vol. 18, No. 1, 99-03 (January 1979)  
Coden: JAMOAX

11. A PASSIVE MICROWAVE TECHNIQUE FOR PROFILING OF ATMOSPHERIC WATER VAPOR

Schaerer, G.; Wilheit, T. T.  
Armament Technol. and Procurement Group, Bern, Switzerland  
Radio Sci. (USA), Vol. 14, No. 3, 371-5 (June 1979)  
Coden: RASCAD

12. REFRACTION OF MICROWAVE SIGNALS BY WATER VAPOR

Goldfinger, A. D.  
Appl. Phys. Lab., Johns Hopkins Univ. Laurel, MD, USA  
J. Geophys. Res. (USA), Vol. 85, No. C9, 4908 12, (September 1980)  
Coden: JGREA2

13. GROUND BASED MICROWAVE RADIOMETRIC RETRIEVAL OF PRECIPITABLE WATER VAPOR IN THE PRESENCE OF CLOUDS WITH HIGH LIQUID CONTENT

Westwater, E. R.; Guiraud, F. O.  
Environmental Res. Labs., NOAA, Boulder, CO, USA  
Radio Sci. (USA), Vo. 15, No. 5, 947-57 (September 1980)  
Coden: RASCAD

14. AN ALGORITHM FOR RETRIEVAL OF OCEAN SURFACE AND ATMOSPHERIC PARAMETERS FROM THE OBSERVATIONS OF THE SCANNING MULTICHANNEL MICROWAVE RADIOMETER

Wilheit, T. T.; Chang, A. T. C.  
Goddard Space Flight Center, NASA, Greenbelt, MD, USA  
Radio Sci. (USA) Vol. 15, No. 3, 525-44 (June 1980)  
Coden: RASCAD

15. REMOTE SENSING OF PRECIPITABLE WATER OVER THE OCEANS FROM NIMBUS-7  
MICROWAVE MEASUREMENTS

Prabhakara, C.; Chang, H. D.; Chang, A. T. C.  
Goddard SFC, Greenbelt, MD  
NASA Technical Memorandum 82117  
(April 1981)

TEMPERATURE IR MEASUREMENTS  
(WITH OR WITHOUT H<sub>2</sub>O VAPOR MEASUREMENTS)

1. TEMPERATURE, PRESSURE, DENSITY AND WIND MEASUREMENTS IN THE  
UPPER STRATOSPHERE AND MESOSPHERE, 1965

Horvath, J. J.; Katchen, L. B.; Smith, W. S.; Swartz, P. C.; Theon, J. S.  
Goddard, NASA, Greenbelt, Md.  
Rept No: NASA-TR-R-263 (September 1967)

2. CIRCULATION FEATURES OF THE STRATOSPHERE DERIVED FROM RADIOMETRIC  
TEMPERATURE MEASUREMENTS WITH THE TIROS VII SATELLITE

Kennedy, J. S.; Nordberg, W.  
Goddard, NASA, Greenbelt, Md.  
Rept No: NASA-TM-X-55859; X-620-67-134 (March 1967)

3. DETERMINATION OF THE TEMPERATURE PROFILE IN AN ATMOSPHERE  
FROM ITS OUTGOING RADIANCE

Chahine, M. T.  
Jet Propulsion Lab., Pasadena, CA  
Journal Opt. Society Am., Vol. 58, No. 12, pp 1634-37  
(December 1968)

4. TEMPERATURE, PRESSURE, DENSITY, AND WIND MEASUREMENTS IN THE  
STRATOSPHERE AND MESOSPHERE, 1966

Horvath, J. J.; Katchen, L. B.; Smith, W. S.; Swartz, P. C.; Theon, J. S.  
Goddard, NASA, Greenbelt, Md.  
Rept No: NASA-TR-R-288 (August 1968)

5. AIRBORNE RADIOMETRIC SYSTEM

Fow, B. R.  
Sperry Rand Engng. Rev. (USA), Vol. 22, No. 4, 6-13 (1969)

6. INTERFEROMETER EXPERIMENT ON NIMBUS 3: PRELIMINARY RESULTS

Hanel, R.; Conrath, B.  
Goddard, NASA, Greenbelt, MD., USA  
Science (USA) Vol.165, No.3899 1258-60 (1969)

7. ON APPLICATION OF THE STATISTICAL METHOD FOR DETERMINATION OF ATMOSPHERIC TEMPERATURE PROFILES FROM SATELLITES

Malkevich, M. S.; Kozlov, V. P.; Gorchakova, I. A.  
Inst. Atmospheric Physics, Moscow, USSR  
Tellus (Sweden) Vol.21, No. 3, 389-94 (1969)

8. ATMOSPHERIC TEMPERATURE: SUCCESSFUL TEST OF REMOTE PROBING

Wark, D. Q.; Hilleary, D. T.  
Nat. Envir. Sat. Serv., Washington, D. C., USA  
Science (USA) Vol.165, No. 3899 1256-8 (September 1969)

9. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURE FROM SATELLITES.  
II. THE SELECTIVE CHOPPER RADIOMETER FOR NIMBUS D

Abel, P. G.; Ellis, P. J.; Houghton, J. T.; Peckham, G.;  
Rodgers, C. D.; Smith, S. D.; Williamson, E. J.  
Univ. Oxford, England  
Proc. R. Soc. A (GB) Vol. 320, No. 1540, 35-55 (1970)

10. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURES FROM SATELLITES.  
III. MEASUREMENTS UP TO 35 KM ALTITUDE WITH A BALLOON-BORNE  
SELECTIVE CHOPPER RADIOMETER

Abel, P. G.; Houghton, J. T.; Matley, J. B.; Williamson, E. J.  
Univ. Oxford, England  
Proc. R. Soc. A (GB) Vol.320, No.1540 57-69 (1970)

11. TEMPERATURE, PRESSURE, DENSITY, AND WIND MEASUREMENTS IN THE STRATOSPHERE AND MESOPHERE

Casey, J. F.; Horvath, J. J.; Smith, W. S.; Theon, J. S.  
Goddard, NASA, Greenbelt, Md.  
Rept No: NASA-TR-R-340; G-980 (August 1970)

12. METEOROLOGICAL INFRARED INSTRUMENTS FOR SATELLITES

Goldberg, I. L.  
Goddard, NASA, Greenbelt, MD.  
Soc. Photo-Opt. Instrum. Eng. J. (USA), Vol. 9, No. 1, 22-31  
(October 1970)  
Coden: JPIEAK

13. THERMAL EMISSION SPECTRA OF THE EARTH AND ATMOSPHERE FROM THE NIMBUS 4 MICHELSON INTERFEROMETER EXPERIMENT

Hanel, R. A.; Conrath, B. J.  
Goddard, NASA, Greenbelt, MD., USA  
Nature (GB) Vol. 228, No. 5267, 143 5 (1970)

14. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURE FROM SATELLITES.  
I. INTRODUCTION

Houghton, J. T.; Smith, S. D.  
Univ. Oxford, England  
Proc. R. Soc. A (GB) Vol. 320 No. 1540 23-33 (1970)

15. SIRS: AN EXPERIMENT TO MEASURE THE FREE AIR TEMPERATURE FROM A SATELLITE

Wark, D. Q.  
Nat. Envir. Sat. Service, Washington, D.C., USA  
Appl. Optics (USA), Vol. 9, No. 8, 1761-6 (August 1970)

16. VERTICAL SOUNDING OF THE ATMOSPHERE WITH NIMBUS IV INFRARED SPECTROMETER EXPERIMENT

Conrath, B. J.; Hanel, R. A.; Prabhakara, C.; Kunde, V. G.; Revah, I.;  
Salomonson, V. U.  
NASA, Greenbelt, MD., USA  
Proc. of 21st Congress of International Astronautical Federation,  
1009-18 (1971)

17. VERTICAL RESOLUTION OF TEMPERATURE PROFILES OBTAINED FROM  
REMOTE RADIATION MEASUREMENTS

Conrath, B. J.  
Goddard, NASA, Greenbelt, Md.  
Rept No: NASA-TM-X-66009; X-622-71-51 (November 1971)

18. DETERMINING THE TEMPERATURE PROFILE OF THE ATMOSPHERE FROM SATELLITE MEASUREMENTS

Fischer, H.

Verh. Deut Phys. Gess. (Germany), No. 11, 883-4 (1971)

Coden: VDPEAZ

Physic and Meteorology Conference (Abstracts Only) (October 1971)

19. INVESTIGATION OF REMOTE MONITORING OF ATMOSPHERIC TEMPERATURE STRUCTURE

Goetze, Dieter

Honeywell, Inc.

Final rept. (May 1971)

Contract: C-1-35238 (NOAA)

20. SOME ASPECTS OF PRACTICAL SOLUTION OF THE PROBLEM ON ATMOSPHERIC THERMAL SOUNDING FROM SATELLITES

Kondratyev, K. YA.; Pokrovsky, O. M.; Timofeev, YU. M.

Napolitano, L.G. (Editors)

Astronautical Research 1970. Proceedings of the 21st Congress of the International Astronautical Federation, 1027-30 (1971)

21. VERTICAL DISTRIBUTIONS OF ATMOSPHERIC WATER VAPOR FROM SATELLITE INFRARED SPECTROMETER MEASUREMENTS

Smith, William L.; Howell, H. B.

Nat. Envir. Sat. Service, NOAA

J. Applied Meteorology (USA), Vol. 10, No. 5, 1026-34, (May 1971)

22. VERTICAL RESOLUTION OF TEMPERATURE PROFILES OBTAINED FROM REMOTE RADIATION MEASUREMENTS

Conrath, B. J.

Lab. for Planetary Atmos., Goddard SFC, NASA, Greenbelt, MD

Journal of Atmos. Sciences, Vol. 29, pp 1262-70

(October 1972)

23. SIMULATION OF THE INFLUENCE OF VARYING ATMOSPHERIC STATISTICS ON THE ACCURACY OF TEMPERATURE PROFILES DERIVED FROM SATELLITE MEASUREMENTS

Crosby, D. S.; Weinreb, M. P.

American University, Washington, D. C.

Tran. Am. Geophys. Union (USA), Vol. 53, No. 4, 386 (April 1972)

24. INFRA-RED ATMOSPHERIC TEMPERATURE SOUNDING FROM SATELLITES

Ellis, P. J.; Peckham, G.; Sandwell, R.; Smith, S. D.;  
Houghton, J. T.; Rodgers, C. D.; Williamson, E. J.  
Heriot-Watt Univ. Riccarton, Currie, Scotland  
Radio and Electron. Eng. (GB) Vol.42, No.4 155-61 (April 1972)  
Coden: RDEEA4

25. TEMPERATURE SOUNDING FROM SATELLITES

Fritz, S.; Wark, D. Q.; Fleming, H. E.; Smith, W. L.;  
Jacobowitz, H.; Hilleary, D. T.; Alishouse, J. C.  
National Environmental Satellite Service, NOAA, Washington, D.C.  
NOAA Technical REport NESS 59  
(July 1972)

26. OBSERVATIONS OF THE GLOBAL STRUCTURE OF THE STRATOSPHERE AND  
MESOSPHERE WITH SOUNDING ROCKETS AND WITH REMOTE SENSING TECHNIQUES  
FROM SATELLITES

Heath, D. F.; Hilsenrath, E.; Krueger, A. J.; Nordberg, W.;  
Prabhakara, C.  
Goddard, NASA, Greenbelt, Md.  
Rept No: NASA TM-X-66044; X-651-72-279 (August 1972)

27. STATUS OF REMOTE SENSING OF THE TROPOSPHERE

Little, C. Gordon  
NOAA  
Bull. Amer. Met. Soc. Vol. 53, No. 10, 936-9 (October 1972)

28. TRANSMIT FUNCTIONS FOR SATELLITE TEMPERATURE SOUNDING

McClatchey, R. A.  
Air Force Cambridge R. Labs., Bedford, Mass., USA  
Bull. Am. Meterol. Soc. (USA), Vol. 53, No. 5, 503-4 (May 1972)  
Coden: BAMIAT

29. INFERENCE OF STRATOSPHERIC TEMPERATURE STRUCTURE FROM LIMB  
RADIANCE PROFILES

McKee, T. B.  
Colorado State Univ., Fort Collins, USA  
Bull. Am. Meterol. Soc. (USA) Vol.53, No. 5, 499 (May 1972)  
Coden: BAMIAT

30. RESULTS OF A ROCKET NIMBUS SOUNDER COMPARISON EXPERIMENT  
Miller, A. J.; Finger, F. G.  
National Meteorological Center, NOAA, Washington, DC  
Rept No: NASA-CR-62081 (June 1972)

31. APPLICATION OF STEPWISE MULTIPLE REGRESSION TECHNIQUES TO  
INVERSION OF NIMBUS "IRIS" OBSERVATIONS  
Ohring, G.  
GCA Corporation, Bedford, MA  
Monthly Weather Review, Vol. 100, No. 5, pp 336-44  
(May 1972)

32. THERMAL SOUNDING EXPERIMENT BY THE METEOR ARTIFICIAL EARTH SATELLITE  
Pakhomov, L. A.; Timofeyev, Y. M.; Shkyarevskiy, V. G.;  
Pokrovskiy, O. M.  
Techtran Corp.  
Rept No: NASA-TT-F-14493 (July 1972)

33. RETRIEVAL OF ATMOSPHERIC TEMPERATURE PROFILES FROM SATELLITE  
MEASUREMENTS FOR DYNAMICAL FORECASTING  
Smith, W. L.; Woolf, H. M.; Fleming, H. E.  
Journal Appl. Meteorology, Vol. 11, pp 113-22  
(February 1972)

34. RETRIEVAL OF ATMOSPHERIC TEMPERATURE PROFILES FROM SATELLITE MEASUREMENTS  
FOR DYNAMICAL FORECASTING  
Smith, W. L.; Woolf, H. M.; Fleming, H. E.  
Nat. Envir. Sat. Serv, NOAA, Washington  
J. Appl. Meteorol. (USA) Vol. II, No.1, 113-22 (February 1972)

35. SATELLITE TECHNIQUES FOR OBSERVING THE TEMPERATURE STRUCTURE OF THE  
ATMOSPHERE  
Smith, W. L.  
Nat. Envir. Sat. Serv., NOAA, Washington, D.C.  
Bull Am. Meteorol. Soc. (USA), Vol. 53, No. 11, 1074-82 (November 1972)  
Coden: BAMIAT

36. IMPROVEMENT OF SYNOPTIC SCALE MOISTURE AND WIND FIELD ANALYSIS  
USING THE NIMBUS 4 THIR 6.9 MICROMETER OBSERVATIONS

Steranka, J.; Allison, L. J.; Salomonson, V. V.  
Goddard, NASA, Greenbelt, MD.  
Bull. Am. Meterol. Soc. (USA), Vol. 53, No. 5, 508 (May 1972)  
Coden: BAMIAT

37. RADIOMETER FOR REMOTE SOUNDING OF THE UPPER ATMOSPHERE

Taylor, F. W.; Houghton, J. T.; Poskett, C. D.; Rodgers, C. D.;  
Williamson, E. J.  
Oxford Univ., England  
Appl. Optics (USA), Vol. 11, No. 1, 135-41 (January 1971)

38. OPTIMIZATION OF SPECTRAL INTERVALS FOR REMOTE SENSING OF ATMOSPHERIC  
TEMPERATURE PROFILES

Weinreb, M. P.; Crosby, D. S.  
Nat. Envir. Sat. Serv., NOAA, Washington, D. C.  
Remote Sensing Environ (USA), Vol. 2, No. 3, 193-01 (October 1972)  
Coden: RSEEA7

39. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURE FROM SATELLITES.  
IV. THE SELECTIVE CHOPPER RADIOMETER FOR NIMBUS 5

Ellis, P.; Holah, G.; Houghton, J. T.; Jones, T. S.; Peckham, G.;  
Poskett, G. D.; Pick, D. R.; Rodgers, C. D.; Roscoe, H.;  
Sandwell, R.; Smith, S. D.; Williamson, E. J.  
Heriot-Watt Univ., Edinburgh, Scotland;  
Proc. R. Soc. A (GB), Vol. 334, No. 1597, 149-70 (1973)

40. DISTRIBUTION OF WATER VAPOR IN THE STRATOSPHERE AS DETERMINED  
FROM BALLOON MEASUREMENTS OF ATMOSPHERIC EMISSION SPECTRA IN THE  
24-29 MICROMETER REGION

Goldman, A.; Murcay, D. G.; Murcay, F. H.; Williams, W. J.; Brooks, J. N.  
Univ. Denver, Colo., USA  
Appl Opt. (USA), Vol. 12, No. 5, 1045-53 (May 1973)  
Coden: APOPAI

41. REMOTE SOUNDING FROM ARTIFICIAL SATELLITES AND SPACE PROBES OF THE ATMOSPHERES OF EARTH AND THE PLANETS

Houghton, J. T.; Taylor, F. W.  
Univ. of Oxford, England  
Rep. Prog. Phys. (GB), Vol. 36, No. 7, 827-19 (1973)  
Coden: RPPHAG

42. ACCURACY AND COVERAGE OF TEMPERATURE DATA DERIVED FROM IR RADIOMETER ON NOAA 2 SATELLITE

Jastrow, R. J.; Halem, M.  
Goddard Space Institute, NASA, New York USA  
J. Atmos Sci (USA), Vol. 30, No. 5, 958-64 (July 1973)  
Coden: JAHSAK

43. A COMPARISON BETWEEN STRATOSPHERIC TEMPERATURES MEASURED IN SITU BY RADIOSONDES AND REMOTELY SENSED BY THE VERTICAL TEMPERATURE PROFILE RADIOMETER (VTPR) OF THE NOAA 2 SATELLITE

Johnson, K. W.  
Nat. Weather Service, NOAA, Washington, USA  
EOS. Trans. Am. Geophys. Union (USA), Vol. 54, No. 4, 277 (April 1973)

44. THE MEASUREMENT OF ATMOSPHERIC TEMPERATURE PROFILES FROM SATELLITES

Major, G.  
Kozponti Legkorfizikai Intezet, Budapest, Hungary  
Fiz. Sz. (Hungary), Vol. 23, No. 6, 174-8 (June 1973)  
Coden: FISZA6

45. METEOROLOGICAL FIELDS FROM REMOTE INFRARED SENSING

Ohring, G.  
Tel Aviv Univ., Ramat Aviv, Israel  
Geophys. Surv. (Netherlands), Vol. 1, No. 2, 163-93 (September 1973)  
Coden: JGREAS

46. APPLICATION OF NIMBUS 4 THIR 6.7 MICROMETER OBSERVATIONS TO REGIONAL AND GLOBAL MOISTURE AND WIND FIELD ANALYSES

Steranka, J.; Allison, L. J.; Salomonson, V. V.  
NASA, Greenbelt, MD., USA  
J. Appl Meteorol. (USA), Vol. 12, No. 2, 386-95 (March 1973)  
Coden: JAMOAX

47. EXPECTED ACCURACY OF TROPOPAUSE HEIGHT AND TEMPERATURE AS DERIVED FROM SATELLITE RADIATION MEASUREMENTS

Strand, O. N.  
Environmental Research Laboratories  
NOAA, Boulder, Col.  
NOAA Technical Report ERL 295-WPL-28  
(December 1973)

48. OPERATIONAL SOUNDING OF THE ATMOSPHERE FROM NOAA 2 SATELLITE DATA

Wark, D. Q.; Bittner, F. E.; Crosby, D. S.; Fleming, H. E.;  
Lauritson, L.A.; Luebbe, R.C.; McMillin, L.M.; Pritchard, J.A.;  
Weinreb, M.P.; Werbowetzke, A.  
Nat. Environ., Sat. Serv., NOAA, Washington, DC USA  
EOS Trans. Am. Geophys. Union (USA), Vol. 54, No.4, 276 (April 1973)

49. THE DESIGN, CONSTRUCTION, AND CALIBRATION OF AN INFRARED PROFILE RADIOMETER (ITPR) FOR NIMBUS E

Bowen, G. S.  
Gulton Industries, Inc. Albuquerque, N. Mex., USA  
ISA Trans. (USA), Vol. 13, No. 2, 101-19 (1974)  
Coden: ISATAZ

50. THE EFFECT OF ATMOSPHERIC CO<sub>2</sub> VARIATIONS ON SATELLITE SOUNDED TEMPERATURES

Bruce, Rufus E.; Duncan, Louis D.  
Army Electronics Command.  
Rept No: ECOM-5552 (December 1974)

51. INFRARED WATER VAPOR AND TEMPERATURE PROFILER

Claysmith, C. R.  
General Dynamics, San Diego Calif, Electro Dynamic Div Office of  
Naval Research, Arlington, Va. Defense Supply Agency, San Diego, Calif  
Rept No: R-74-056 (May 1974)

52. EFFECT OF INCORRECT ATMOSPHERIC STATISTICS ON THE ACCURACY OF TEMPERATURE PROFILES DERIVED FROM SATELLITE MEASUREMENTS

Crosby, D. S.; Weinreb, M. P.  
Nat. Envir. Sat. Services, NOAA, Washington, D. C.  
J. Stat. Comput. and Simulation (GB), Vol. 3, No. 1, 41-51 (January 1974)  
Coden: JSCSAJ

53. ATMOSPHERIC TRANSMITTANCE MODELS FOR INFRARED RADIOMETRIC MEASUREMENTS  
Davis, Paul A.  
Stanford Research Inst.  
Final Report: SRI-2244, Contract: NOAA-3-35208 (March 1974)

54. REMOTE SOUNDING OF STRATOSPHERIC TEMPERATURES USING HIGH RESOLUTION  
RADIANCE MEASUREMENTS FROM THE IRIS-D  
Gallery, W. O.  
Chicago University.  
Report No: NASA-CR-141130 (December 1974)

55. NIMBUS 4 OBSERVATIONS OF CHANGES IN TOTAL OZONE AND STRATOSPHERIC  
TEMPERATURE DURING A SUDDEN WARMING  
Ghazi, A.  
NASA, Greenbelt, MD., USA  
J. Atmos. Sci. (USA) Vol. 31, No. 8, 2197-206 (November 1974)  
Coden: JAHSAK

56. ITERATIVE RETRIEVAL AND STATISTICAL SPECIFICATION OF  
ATMOSPHERIC THICKNESSES FROM VTPR CLEAR COLUMN RADIANCE DATA  
Moran, Douglas Ray (Masters Thesis) (March 1974)  
Naval Postgraduate School

57. NIMBUS-5 SOUNDER DATA PROCESSING SYSTEM. PART I. MEASUREMENT  
CHARACTERISTICS AND DATA REDUCTION PROCEDURES  
Smith, W. L.; Woolf, H. M.; Abel, P. G.; Hayden, C. M.; Chalfant, M.  
Nat. Envir. Sat. Service, NOAA, Washington  
Technical Memo. NOAA-TM-NESS-57 (June 1974)

58. NIMBUS-5 SOUNDER DATA PROCESSING SYSTEM. PART II. RESULTS  
Smith, W. L.; Woolf, H. M.; Hayden, C. M.; Shen, W. C.  
Nat. Envir. Sat. Serv., NOAA, Washington (USA)  
Technical Memo. NOAA-TM-NESS-71 (June 1974)

59. A SENSITIVE TWO-FREQUENCY RADIOMETER FOR REMOTE SENSING OF TEMPERATURE  
PROFILES  
Snider, J. B.  
NOAA, Boulder, Colo., USA  
Rev. Sci. Instrum. (USA), Vol. 45, No. 8, 981-4 (July 1974)  
Coden: RSINAK

60. DIRECT APPLICATION OF VTPR DATA

Valovcin, Francis R.  
Air Force Cambridge Research Labs.  
Rept No: AFCRL-TR-74-0591 (1974)

61. SATELLITE OBSERVATIONS OF ATMOSPHERIC WATER VAPOR

Wark, D. Q.; Lienesch, J. H.; Weinreb, M. P.  
Nat. Envir. Sat. Serv., NOAA, Washington, DC USA  
Appl. Opt. (USA), Vol. 13, No. 3, 507-11 (March 1974)  
Coden: APOPAI

62. RADIOMETRIC ATMOSPHERIC MEASUREMENTS

Astheimer, R. W.  
Barnes Engng. Co., Stamford, CT, USA  
Laser 75, Opto-Electronics Conference Proceedings, 235-9,  
Munich, Germany (June 1975)

63. TEST AND EVALUATION OF A VTPR RETRIEVAL SYSTEM FROM CLEAR  
COLUMN NOAA 2 RADIANCES

Dyck, Harry Milton Jr (Masters Thesis)  
Naval Postgraduate School, Monterey Calif. (March 1975)

64. NEW METHODS FOR ATMOSPHERIC TEMPERATURE INVERSION

Kagiwade, H. H.; Kalaba, R. E.  
Rand Corp, NESS.  
Rept No: R-1810-DOC, Contract: C-5-35179 (NOAA) (October 1975)

65. HIGH RESOLUTION INFRARED RADIATION SOUNDER (HIRS) FOR THE NIMBUS  
SPACECRAFT

Koenig, E. W.  
ITT Aerospace, Ft. Wayne, Ind.  
Rept. No. NASA-CR-144743 (December 1975)

66. NIMBUS-5 SOUNDER DATA PROCESSING SYSTEM. PART 2: RESULTS

Smith, W. L.; Woolf, H. M.; Hayden, C. M.; Shen, W. C.  
Nat. Envir. Sat. Serv., NOAA, Washington (USA)  
Rept No: NASA-CR-146089; NOAA-75082801-PT-2 (July 1975)

67. MEASUREMENT OF THE MIXING RATIO PROFILE FOR WATER VAPOR AND NITROGEN DIOXIDE IN THE STRATOSPHERE

Snider, Donald E.  
Ballistic Research Labs Aberdeen Proving Ground MD.  
Final rept.  
Rept No: BRL 1835 (October 1975)

68. MEASUREMENT OF LOWER ATMOSPHERIC TEMPERATURE PROFILES FROM GROUND BASED INFRARED OBSERVATIONS

Wang, J. Y.; Claysmith, C. R.  
General Dynamics Convair Aerospace Div., San Diego, CA, USA  
J. Appl. Meteorol (USA), Vol. 14, No. 3, 308-18 (April 1975)  
Coden: JAMOAX

69. A COMPARISON BETWEEN NIMBUS 5 THIR AND ITPR TEMPERATURES AND DERIVED WINDS WITH RAWINSONDE DATA OBTAINED IN THE AVE 2 EXPERIMENT

Arnold, J. E.; Scoggins, J. R.; Fuelberg, H. E.  
Texas A&M University  
Rept No: NASA-CR-2757; M-180 (October 1976)

70. OPERATIONAL-TYPE ANALYSES DERIVED WITHOUT RADIOSONDE DATA FROM NIMBUS 5 NOAA 2 TEMPERATURE SOUNDINGS

Bonner, William D.; Van Haaren, Robert; Hayden, Christopher M.  
National Meteorological Center NOAA, Washington  
Rept No: NOAA-TM-NWS-NMC-58 (March 1976)  
\$VT \$WT \$SC #M

71. SOUNDER DESIGN CONIDERATIONS IN THE SELECTION OF TEMPERATURE SENSING CHANNELS

Halem, M.; Ming-Dah Chow  
Inst. For Space Studies, Goddard Space Flight Center, NASA,  
New York, NY, USA  
J. Appl. Meteorol. (USA), Vol.15, No.4, 394-401 (April 1976)  
Coden: JAMOAX

72. THE USE OF THE RADIOSONDE IN DERIVING TEMPERATURE SOUNDINGS FROM THE NIMBUS AND NOAA SATELLITE DATA

Hayden, Christopher M.  
Nat. Envir. Sat. Serv., Washington, USA  
Rept No: NOAA-TM-NESS-76 (April 1976)

73. REMOTE TEMPERATURE INVERSION SENSOR

Malikmus, W.; Griggs, M.

Science Applications, Inc., Energy Research and Development Administration  
Contract: EY-76-C-13-1664 (1976)

74. SATELLITE TEMPERATURE SOUNDING OF THE ATMOSPHERE: GROUND TRUTH ANALYSIS

McClatchey, Robert A.

Air Force Geophysics Lab Hanscom AFB Mass

Rept No: AFGL-TR-76-0279; AFGL-AFSG-356 (November 1976)

75. RETRIEVAL OF ATMOSPHERIC TEMPERATURE AND COMPOSITION FROM REMOTE MEASUREMENTS OF THERMAL RADIATION

Rodgers, C. D.

Nat. Center for Atmospheric Res., Boulder, Co, USA

Rev. Geophys. and Space Phys. (USA), Vol.14, No.4, 609-24 (November 1976)

Coden: RGPBL

76. THE VERTICAL RESOLUTION OF REMOTELY SOUNDED TEMPERATURE PROFILES WITH A PRIORI STATISTICS

Rodgers, C. D.

Nat. Center for Atmospheric Res., Boulder, CO, USA

J. Atmos. Sci. (USA) Vol. 33, No. 4, 707-9 (April 1976)

Coden: JAHSAK

77. A FURTHER COMPARISON OF 50-MILLIBAR GEOPOTENTIALS OBTAINED FROM SATELLITE INFRA-RED SPECTROMETER SOUNDINGS AND ANALYSED CHARTS

Bailey, V.

Meteorol. Mag. (GB), Vol.106, No. 1259, 165-9 (June 1977)

Coden: MTMGA5

78. DETERMINATION OF THE OPTIMUM FIELD OF VIEW AND SPACING BETWEEN OBSERVATIONS FOR A SATELLITE-BORNE SCANNING RADIOMETER OBSERVING THE STRATOSPHERE

Campbell, S.; May, B.

UK Meteorological Office, , England

Remote Sensing Environ. (USA), Vol.6, No.3, 157-67 (1977)

Coden: RSEEA7

79. ZENITH ANGLE VARIATION OF SATELLITE THERMAL SOUNDER MEASUREMENT

Duncan, Louis D.

Army Electronics Command, Fort Monmouth, NJ

Rept No: ECOM-5828 (August 1977)

80. TEMPERATURE RETRIEVALS FROM SATELLITE RADIANCE MEASUREMENTS-AN EMPIRICAL METHOD

Fritz, S.

Meteorology Program, Univ. of Maryland, College Park, MD, USA  
J. Appl. Meteorol. (USA), Vol. 16, No. 2, 172-6 (February 1977)

Coden: JAMOAX

81. DERIVING MESOSCALE TEMPERATURE AND MOISTURE FIELD FROM SATELLITE RADIANCE MEASUREMENTS OVER THE UNITED STATES

Hillger, D. W.; Vonderharr, T. H.

Dept. of Atmospheric Sci., Colorado State Univ., Fort Collins, CO, USA

J. Appl. Meteorol. (USA), Vol. 16, No. 7, 715-26 (July 1977)

Coden: JAMOAX

82. CALIBRATION OF INFRARED INSTRUMENTS FOR THE REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURE

Houghton, J. T.

Dept. of Atmospheric Phys., Oxford Univ., Oxford, England

Appl. Opt. (USA) Vol. 16, No. 2, 319-21 (February 1977)

Coden: APOPAI

83. TEMPERATURE SENSING: THE DIRECT ROAD TO INFORMATION

Kaplan, L. D.

The University of Chicago, Chicago, IL

Inversion Methods in Atmospheric Remote Sounding, Academic Press,

New York, NY

(1977)

84. SPECTRAL BAND PASSES FOR A HIGH PRECISION SATELLITE SOUNDER

Kaplan, L. D.; Chahine, M. T.; Susskind, J.; Searl, J. E.

Dept. of Geophys. Sci., Univ. of Chicago, Chicago, IL, USA

Appl. Opt. (USA) Vol. 16, No. 2, 322-5 (February 1977)

Coden: APOPAI

85. OBSERVATIONS OF STRATOSPHERIC THERMAL STRUCTURE FROM SATELLITES AND ATLAS OF STRATOSPHERIC THERMAL STRUCTURE

Kleepsies, T. J.  
Colorado State University, Fort Collins, Co.  
Environmental Research Papers, No. 8 (May 1977)

86. ON THE EFFECT OF SURFACE EMISSIVITY ON TEMPERATURE RETRIEVALS

Kornfield, J.; Susskind, J.  
NASA Inst. for Space Studies, Goddard SFC, New York, NY  
Monthly Weather Rev., Vol. 105, No. 12, pp 1605-08  
(December 1977)

87. TEMPERATURE SOUNDINGS WITH PARTIALLY SCANNED INTERFEROGRAMS

Kyle, T. G.  
US Nat. Center Atmospheric Res., Boulder, CO, USA  
Appl. Opt. (USA) Vol 16, No. 2, 326-33 (February 1977)  
Coden: APOPAI

88. ATMOSPHERIC STRUCTURE DEDUCED FROM ROUTINE NIMBUS 6 SATELLITE DATA

Moyer, V.; Scoggins, J. R.; Chou, N-M.; Wilson, G. S.  
Texas A & M University, College Station, TX  
Monthly Weather Rev., Vol. 106, pp 1340-52  
(September 1958)

89. SATELLITE BORNE MONITORING OF ATMOSPHERIC AND SURFACE CHARACTERISTICS AFFECTING THE PROPAGATION OF MICROWAVES IN THE TROPOSPHERE

Raschke, E.  
Univ. Zu-Koln, Koln Germany  
Albrecht, H. J. (Editor)  
Agard Conference Proceedings No. 208 EM Propagation Characteristics of Surface Materials and Interface Aspects, Agard, Neuilly Sur Seine, France (December 1977)

90. ROCKETBORNE MEASUREMENT OF MESOSPHERIC H<sub>2</sub>O IN THE AURORAL ZONE

Rogers, J. W.; Stair A. T. Jr.; Degges, T. C.; Wyatt, C. L.; Baker, K. J.  
Air Force Geophys. Lab., Bedford, MA, USA  
Geophys. Res. Lett. (USA), Vol. 4, No. 9, 366-8 (September 1977)  
Coden: GPRLAJ

91. PRECIPITABLE WATER VAPOR IN ATMOSPHERES CHARACTERIZED BY TEMPERATURE INVERSIONS

Tomasi, C.

Sezione Microfisica Dell Atmosfera, CNR. Bologna, Italy  
J. Appl. Meteorol. (USA), Vol. 16, No. 3, 237-43 (March 1977)  
Coden: JAMOAX

92. TEMPERATURE SOUNDING FROM THE ABSORPTION SPECTRUM OF CO<sub>2</sub>  
AT 4.3 MICROMETERS

Toth, R. A.

Jet Propulsion Lab., California Inst. of Technol., Pasadena, CA, USA  
Appl. Opt. (USA), Vol. 16, No. 10, 2661-8 (October 1977)  
Coden: APOPAI

93. SENSITIVITY OF SATELLITE RETRIEVALS OF TEMPERATURE TO ERRORS  
IN ESTIMATES OF TROPOSPHERIC WATER VAPOR

Weinreb, M. P.

Nat. Envir. Sat. Serv., NOAA, Washington, DC USA  
J. Appl. Meteorol. (USA), Vol. 16, No. 6, 605-13 (June 1977)  
Coden: JAMOAX

94. THE GISS SOUNDING TEMPERATURE IMPACT TEST

Halem, M.; Ghil, M.; Atlas, R.; Susskind, J.; Quirk, W. J.  
Goddard, NASA, Greenbelt, Md. (USA)  
Rept No: NASA-TM-78063 (January 1978)

95. THE DESIGN OF A MULTI-DETECTOR SPECTROMETER FOR THE INFRARED  
(ATMOSPHERIC TEMPERATURE SOUNDER)

Koch, D. G.; Aubrecht, J. A.

Optical Res. Associates, Pasadena, Ca, USA

Zimmerman, J.: Speake, G. (Editors)

Proceedings of the Society of Photo-optical Instrumentation  
Engineers, Vol. 131, Practical Infrared Optics, 18-3 (January 1978)  
Los Angeles, Ca, USA  
Publ: Soc. Photo Optical Instrumentation Engrs., Bellingham, WA USA

96. EFFECT OF AEROSOL-CAUSED ATTENUATION OF THE ACCURACY OF THE  
REMOTE SENSING OF TEMPERATURES OF THE OCEAN AND ATMOSPHERE

Malkevich, M. S.; Petrenko, B. Z.

Institute of Oceanology,

USSR Academy of Sciences

Izv. Atmos. and Oceanic Phys. (USA)

Vol. 14, No. 7, pp 516-21

(1978)

97. NEW RESULTS IN THE SATELLITE DETERMINATION OF THE TEMPERATURE PROFILE IN THE ATMOSPHERE

Molnar, G.

Fiz. SZ (Hungary), Vol. 28, No. 10, 376-81 (October 1978)

Coden: FISZA6

98. AN EMPIRICAL BAYES REGULARIZATION IN THE PROBLEM OF TEMPERATURE SOUNDING (OF THE ATMOSPHERE)

Sonechkin, D. M.

Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys. (USA) (1978)

Coden: BSUAAZ

99. AN ANALYSIS OF SATELLITE INFRARED SOUNDINGS AT THE MESOSCALE USING STATISTICAL STRUCTURE AND CORRELATION FUNCTIONS

Hillger, D. W.; Vonderhaar, T. H.

Dept. of Atmospheric Sci. Colorado State Univ., Fort Collins, CO, USA

J. Atmos. Sci. (USA), Vol. 36, No. 2, 287-05 (February 1979)

Coden: JAHSAK

100. HIGH RESOLUTION INFRARED RADIATION SOUNDER MOD 2 (HIRS 2)

Koenig, E. W.

ITT Aerospace Optical Div.

Final Project Report 1979

Rept No: NASA-CR-160030 (August 1979)

101. AN ATMOSPHERIC TEMPERATURE PROFILE MEASURED WITH AN IN-SITU INFRARED RADIOMETER

McClatchey, R. A.; D'Agati, A. D.

Air Force Geophysics Lab

Rept No: AFGL-TR-79-0100; AFGL-ERP-661 (May 1979)

102. INTERPRETATION OF NIMBUS 5 SCR DATA FOR OBTAINING VERTICAL TEMPERATURE PROFILES

Molnar, G. Y.

Dept. of Atmospheric Phys., Univ. of Oxford, Oxford, England

W. J. R. Meteorol. Soc. (GB), Vol. 105, No. 444, 461-7 (April 1979)

Coden: QJRMAM

103. RETRIEVAL OF MASS-STRUCTURE INFORMATION FROM THE DEFENSE METEOROLOGICAL SATELLITE PROGRAM (DMSP) INDIRECT SOUNDING INSTRUMENT

Nagle, R. E.; Clark, J. R.  
Naval Environmental Prediction Research Facility, Monterey, CA  
(COSPAR) Remote Sounding of the Atmosphere from Space,  
Bolle, H. J. (Editor)  
Pergamon Press (1979)

104. VARIATIONAL SCHEME FOR ATMOSPHERIC TEMPERATURE RETRIEVAL

Palmer, T. N.  
Meteorological Office, Bracknell, England  
Q. J. R. Meteorol. Soc. (GB), Vol. 105, No. 446-03 (October 1979)  
Coden: QJRMAM

105. AN EVALUATION OF EARLY OPERATIONAL TEMPERATURE SOUNDINGS FROM TIROS-N

Phillips, N.; McMillan, L.; Gruber, A.; Wark, D.  
National Meteorological Center, NOAA, Washington  
Bull. Amer. Met. Soc., Vol. 60, No. 10, 1188-97 (October 1979)

106. THE USE OF INTERFEROMETRIC RADIANCE MEASUREMENTS FOR SOUNDING THE ATMOSPHERE

Smith, W. L.; Howell, H. B.; Woolf, H. M.  
National Environmental Satellite Service, Madison, WI  
Journal of Atmospheric Sciences, Vol. 36, pp 566-75  
(April 1979)

107. THE TIROS N OPERATIONAL VERTICAL SOUNDER

Smith, W. L., Woolf, H. M.; Hayden, C. M.; Wark, D. Q.; McMillin, L. M.  
Nat. Envir. Sat. Serv., NOAA, Madison, WI, USA  
Bull. AM. Meteorol. Soc. (USA), Vol. 60, No. 10, 1177-87 (October 1979)  
Coden: BAMIAT

108. COMPARISONS BETWEEN NIMBUS 6 SATELLITE AND RAWINSONDE SOUNDINGS FOR SEVERAL GEOGRAPHICAL AREAS

Cheng, N. M.; Scoggins, J. R.  
Texas A and M University  
Rept. No. NASA-RP-1073; M-330 (1981)

109. VAS DEMONSTRATION SOUNDING WORKSHOP: THE PROCEEDINGS OF A SATELLITE SOUNDING WORKSHOP

Endres, D. L.; Uccellini, L. W.  
Goddard, NASA, Greenbelt, MD.  
Rept No: NASA-CP-2157 (July 1980)  
Conf. Held at Goddard Space Flight Center, Greenbelt, MD.

110. SOUNDING THE STRATOSPHERE AND MESOSPHERE BY INFRARED LIMB SCANNING FROM SPACE

Gille, J. C.; Bailey, P. L.; Craig, R. A.; House, F. B.; Anderson, G. P.  
Nat. Center for Atmospheric Res., Boulder, CO, USA  
Science (USA), Vol. 208, No. 4442, 397-9 (April 1980)  
Coden: SCIEAS

111. MESURE DE LA PRESSION ET DE LA TEMPERATURE ATMOSPHERIQUES PAR ABSORPTION DIFFERENTIELLE LIDAR: INFLUENCE DE LA LARGEUR D EMISSION LASER

Megie, G.  
Service d Aeronomie du CNRS  
Verrières le Buisson, France  
Applied Optics, Vol. 19, No. 1, pp 34-43  
(January 1980)

112. STRATOSPHERIC NO<sub>2</sub> AND H<sub>2</sub>O MIXING RATIO PROFILES FROM HIGH RESOLUTION INFRARED SOLAR SPECTRA USING NONLINEAR LEAST SQUARES

Niple, E.; Mankin, W. G.; Goldman, A.; Murcray, D. G.; Murcray, F. J.  
Nat. Center for Atmospheric Res., Boulder, CO, USA  
Geophys. Res. Lett. (USA), Vol. 7, No. 7, 489-92 (July 1980)  
Coden: GPRLAJ

113. THE ERROR IN SATELLITE RETRIEVED TEMPERATURE PROFILES DUE TO THE EFFECTS OF ATMOSPHERIC AEROSOL PARTICLES

Stowe, L. L.; Fleming, H. E.  
Nat. Envir. Sat. Service, Washington, DC, USA  
Remote Sensing Environ., (USA), Vol. 9, No. 57-6, (February 1980)  
Coden: \$RSEEA

114. COMPARISONS BETWEEN NIMBUS 6 SATELLITE AND RAWINSONDE SOUNDINGS FOR SEVERAL GEOGRAPHICAL AREAS

Cheng, N. M.; Scoggins, J. R.; Texas A and M University  
Rept No. NASA-RP-1073; M-330 (1981)

115. ATMOSPHERIC STRUCTURE DETERMINED FROM SATELLITE DATA

Knight, Keith Shelburne; Scoggins, James R.  
Texas A and M, NASA Hdqt. Washington.  
Grant: DAAG29-76-G-0078 (January 1981)

116. REVIEW OF THE RADIANCE DISTRIBUTION IN THE UPPER MESOSPHERE AS  
OBSERVED FROM THE NIMBUS 6 PRESSURE MODULATOR RADIOMETER (PMR)

Labitzke, K.; Barnett, J. J.  
Inst. For Meteorology, Freie Univ. Berlin, Berlin, Germany  
Planet. and Space Sci. (GB), Vol. 29, No. 6, 673-85 (June 1981)  
Coden: PLSSAE

117. FIRST SOUNDING RESULTS FROM VAS-D

Smith, W. L.; Wolf, H. M.; Hayden, C. M.  
National Earth Satellite Service, NOAA, Madison, WI  
Suomi, V. E.; Menzel, W. P.; Sromovsky, L. A.; Reversomb, H. E.;  
Erickson, D. N.; Mosher, F. R.  
Space Science and Eng. Center  
University of Wisconsin, Madison, WI  
Bull. American Meteorological Society, Vol. 62, No. 2, pp 232-36  
(February 1981)

118. RADIOMETER FOR REMOTE SOUNDING OF THE UPPER ATMOSPHERE

Taylor, F. W.; Houghton, J. T.; Peskett, G. D.; Rodgers, C. D.;  
Williamson, E. J.  
Oxford Univ., England  
Appl. Opt. (USA), Vol. 21, No. 1, 135-41 (January 1981)  
Coden: APOPAI

119. TRANSMITTANCES FOR THE TIROS OPERATIONAL VERTICAL SOUNDER

Weinreb, M. P.; Fleming, H. E.; McMillin, L. M.; Neuendorffer, A. C.  
Nat. Earth Sat. Service  
NOAA, Washington, D. C.  
NOAA Technical Rept. NESS 85  
(September 1981)

120. ATMOSPHERIC SOUNDING USERS' GUIDE

Werbowski, A., Editor  
Nat. Earth Sat. Service  
NOAA, Washington, D.C.  
NOAA Technical Rept. NESS-83  
(April 1981)

TEMPERATURE MICROWAVE MEASUREMENT  
(WITH OR WITHOUT H<sub>2</sub>O VAPOR MEASUREMENTS)

1. APPLICATION OF NONLINEAR INVERSION TECHNIQUES TO GROUND-BASED  
MICROWAVE OBSERVATIONS

House, Frederick B.; Corbin, Victor L.  
GCA Corp  
Rept No: GCA-TR-69-4-A (May 1969)

2. THE IMPROVEMENT OF CLEAR COLUMN RADIANCE DETERMINATION WITH A  
SUPPLEMENTARY 3.8 MICROMETER WINDOW CHANNEL

Smith, William L.  
Nat. Environ. Sat. Serv., NOAA, Washington  
Rept No: NESCTM-16 (July 1969)

3. PASSIVE REMOTE SENSING AT MICROWAVE WAVELENGTHS

Staelin, D. H.  
Proc. IEEE (USA), Vol. 57, No. 4, 427-39 (April 1969)

4. ELECTROMAGNETIC PHASE VARIABILITY AS A MEASURE OF WATER VAPOR  
AND TEMPERATURE VARIATIONS OVER EXTENDED PATHS

Bean, B. R.; McGavin, R. E.  
ESSA Research Labs  
AGARD Conf. Proc. No. 33, p729-3, (November 1970)

5. REMOTE SOUNDING OF THE UPPER ATMOSPHERE BY MICROWAVE MEASUREMENTS

Lenoir, W. B.  
MIT, Cambridge, Mass., USA (1970)

6. REMOTE SENSING OF TROPOSPHERIC TEMPERATURE STRUCTURE BY MEANS  
OF PASSIVE MICROWAVE RADIOMETRY

Miner, Gayle; Thornton, Douglas D.; Welch, William J.  
California University  
Final rept. (February 1971)  
Contract: F19628-68-C-0022 (AFCRL)

7. MICROWAVE DETERMINATION OF LOW ALTITUDE TEMPERATURE PROFILES

Westwater, E. R.

NOAA Boulder, Colo., USA

Proceeding of the 7th International Symposium on Remote Sensing of the Environment, 585-94 (1971)

8. MICROWAVE RADIOMETRIC MEASUREMENTS OF ATMOSPHERIC TEMPERATURE AND WATER FROM AN AIRCRAFT

Rosenkranz, P. W.; Barath, F. T.; Blinn, J. C., III; Johnston, E. J.; Lenoir, W. B.; Staelin, D. H.; Waters, J. W.

Calif. Inst. Technol., Pasadena, CA., USA

J. Geophys. Res. (USA), Vol. 77, No 30, 5833-44, (October 1972)

Coden: JGREA2

9. MICROWAVE RADIOMETRY APPLICATIONS STUDY. VOLUME I

Olson, R. C.; Hubbard, W. A.; Delaney, L. J.; Dunning, C. E.; Blinn, J. C.

Aerojet Electrosystems Co.

Final rept. (November 1973)

Rept No: AESC 1798FR 1 Vol 1

10. MICROWAVE RADIOMETRY APPLICATIONS STUDY. VOLUME II APPENDICES

Olson, R. C.; Hubbard, W. A.; Delaney, L. J.; Dunning, C. E.; Blinn, J. C.

Aerojet Electrosystems Co.

Final rept. (November 1973)

Rept No: AESC-1798FR-1 Vol 2

Rept No: SAMS0-TR-73-381-Vol 2

11. MICROWAVE SPECTROMETER ON THE NIMBUS 5 SATELLITE: METEOROLOGICAL AND GEOPHYSICAL DATA

Staelin, D. H.; Barrett, A. H.; Waters, J. W.; Barath, F. I.; Johnson, E. J.; Rosencranz, P. W.; Gaut, N. E.; Lenoir, W. B.

M.I.T., Cambridge, Mass.

Science (USA), Vol. 192, No. 4119, 1339-41 (December 1973)

Coden: SCIEAS

12. REMOTE SENSING OF STRATOSPHERIC AND MESOSPHERIC TEMPERATURE BY MICROWAVE RADIOMETRY

Waters, J. W.; Staelin, D. H.  
MIT, Cambridge, MASS., USA  
Eos Trans. Am. Geophys. Union (USA), Vol. 54, No. 4, 278 (April 1973)

13. MILLIMETRE-WAVE RADIOMETRY AS A TOOL FOR REMOTE SENSING OF ATMOSPHERIC PARAMETERS

Croom, D. L.  
SRC, Slough, England  
Conference on Environmental Sensors and Applications, 135-44  
London, England (November 1974)

14. THE SPECTRAL EMISSION OF THE ATMOSPHERE IN THE SUBMILLIMETRE BAND

Igoshin, F. F.; Kir'yanov, A. P.; Kuzenkov, A. F.; Mozhaev, V. V.;  
Rudakov, V. V.; Tulaikova, M. M.; Sheronov, A. A.  
Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol 10.  
No. 2, 206-9 (February 1974)  
Trans In: Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys. (USA)  
Coden: BSUAAZ

15. MICROWAVE ATMOSPHERIC TEMPERATURE SOUNDING: EFFECTS OF CLOUDS ON THE NIMBUS 5 SATELLITE DATA

Staelin, D. H.; Cassel, A. L.; Kunzi, K. F.; Pettyjohn, R. L.;  
Poon, R. K. L.; Rosenkranz, P. W.; Waters, J. W.  
Res. Lab. of Electronics, MIT, Cambridge, MA, USA  
J. Atmos. Sci (USA), Vol.32, No.10, 1970-6 (October 1975)  
Coden: JAHSAK

16. REMOTE SENSING OF ATMOSPHERIC TEMPERATURE PROFILES WITH THE NIMBUS 5 MICROWAVE SPECTROMETER

Waters, J. W.  
Jet Propulsion Lab., Pasadena, CA  
Kunzi, K. F.; Pettyjohn, R. L.; Poon, R. K. L.; Staehlin, D. H.  
Mass. Inst. of Tech., Cambridge, MA  
Journal of Atmospheric Science, Vol. 32, No. 10, pp 1953-69  
(October 1975)

17. TEMPERATURE AIR SOUNDING FROM SATELLITES IN THE RANGE OF 5 MM  
FOR THE DRY CLOUDLESS ATMOSPHERE

Drobyshevich, V. I.

Fiz Atmos. and Okeana, Vol. 12, No. 9, 906-11 (September 1976)  
Trans. In: Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys. (USA)  
Coden: BSUAAZ No date (XXXX)

18. REMOTE TEMPERATURE PROFILING IN THE LOWER TROPOSPHERE

Frankel, M. S.; Peterson, A. M.

Center Radar Astron., Stanford Univ., Stanford, CA, USA  
Radio Sci. (USA) Vol. 11, No. 3, 157-66 (March 1976)  
Coden: RASCAD

19. REMOTE DETERMINATION OF ANOMALOUS PROFILES OF TEMPERATURE AND HUMIDITY  
IN THE ATMOSPHERE

Gurvich, A. S.; Ershov, A. T.

Izv. Akad. Nauk SSSR, Fiz. Atmos and Okeana, Vol 12, No. 12  
(December 1976)

Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys.  
Coden: BSUAAZ

20. ON SELECTION OF THERMAL AND NON-THERMAL RADIOEMISSION AT SOUNDING OF  
EARTH FROM SATELLITES

Kachurin, L. G.; Poltinnikov, V. I.

Izv. Akad. Nauk SSSR Fiz. Atmos. and Okeana Vol. 12, No. 9,  
947-52 (September 1976)

Coden: IFAOAV

21. INVESTIGATIONS OF THE FUNCTION OF RADIOPHOTONIC TEMPERATURE AND A  
GENERAL INVERSE PROBLEM OF SOUNDING FROM AN ARTIFICIAL EARTH SATELLITE  
OVER THE OCEAN

Nelepo, B. A.; Suetin, V. S.

Morsk. Gidrofiz Issled (USSR), No. 2, 140-7 (1976)

Coden: MGFIBM

22. DETERMINATION OF THE HEIGHT TEMPERATURE PROFILE FROM GROUND BASED  
RADIOMETRIC MEASUREMENT OF ATMOSPHERIC RADIATION

Aleshin, V. I.; Naumov, A. P.; Plechkov, V. M.; Sumin, M. I.;  
Troitskii, A. V.

Izv. Vuz Radiofiz (USSR), Vol. 20, No. 2, 198-211 (1977)

Coden: SORPAK

23. SYNOPTIC-SCALE STUDIES USING THE NIMBUS 6 SCANNING MICROWAVE SPECTROMETER

Grody, N. C.; Pellegrino, P. P.  
Nat. Envir. Sat. Serv., NOAA, Washington, DC, USA  
J. Appl. Meteorol. (USA), Vol. 16, No. 8, 816-26 (August 1977)  
Coden: JAMOAX

24. EFFECT OF CO<sub>2</sub> LINE WIDTH ON 15 MICROMETER ATMOSPHERIC EMISSION

Kevel, B; Fleming, H. E; Planet, W. G.  
Avco Everett Res. Lab., Inc., Everett, MA, USA  
J. Quant. Spectrosc. and Radiat. Transfer (GB), Vol. 17, No. 2, 181-6  
(February 1977)  
Coden: JQSRAE

25. ATMOSPHERIC MEASUREMENTS NEAR 118 GHz WITH PASSIVE MICROWAVE TECHNIQUES

Staelin, David H.; Rosenkrantz, Philip W.; Cassel, Alan;  
McDonough, David; Steffes, Paul  
Massachusetts Inst of Tech Cambridge Research Lab of Electronics:  
Final Rept. AFGL-RR-78-0183 (December 1977)

26. POSSIBILITY OF DETERMINING TEMPERATURE INVERSION BY GROUND BASED LONG-RANGE SOUNDING OF THE ATMOSPHERE IN THE 5 MM O<sub>2</sub> ABSORPTION BAND

Sumin, MI; Troitskii, A. V.  
Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol. 13, No. 10 1090-4  
(October 1977)  
Coden: IFAOAV  
Trans In: Izv. Acad. Sci. USSR Atmos. and Oceanic Phys. USA  
Coden: BSUAAZ

27. THE CHARACTERISTICS OF THE MICROWAVE RADIOMETRY USED IN REMOTE SENSING ATMOSPHERIC TEMPERATURE PROFILE

Chao Bo-Lin; Du Jun-Lin; Liu Shi Da; Yin Hong; Hu Ceng-Da; Wang Yi-Ju;  
Shi Shu-Min; Zhou Li-Zen; Sao Gen-Jin  
Dept. of Geophys., Univ. Peking, Peking, China  
Acta Sci. Nat. Univ. Pekin. (China), No. 1, 89-98 (March 1978)  
Coden: PCTHAP  
Chinese Language

28. A FOUR BAND MILLIMETER WAVE RADIOMETER DESIGN FOR ATMOSPHERIC  
REMOTE SENSING

Goodwin, F. E.; Hersman, M. S.; Shiue, J. C.  
Hughes Aircraft Co., Space and Communications Group, Los Angeles, CA, USA  
1978 IEEE International Microwave Symposium Digest, 245-7 (June 1978  
Ottawa, Canada)  
Publ: IEEE, New York, USA

29. TEMPERATURE HEIGHT PROFILE DETERMINATION BY AIRCRAFT MEASUREMENTS OF  
THE OUTGOING RADIO EMISSION OF THE EARTH-ATMOSPHERE SYSTEM

Kitai, SH. D.; Sumin, M. I.; Troitskii, A. V.  
Izv. Akad, Nauk SSSR, Fiz. Atmos. and Okeana, Vol. 14, No. 11, 1131-8  
(November 1978)  
Coden: IFAOAV  
Trans In: Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys (USA)  
Coden: BSUAAZ

30. ATMOSPHERIC SOUNDING USING MILLIMETER WAVE RADIOMETRY

Kunzi, K. F.; Meier, D.; Randegger, A.  
Inst. of App. Phys., Univ. of Berne, Berne, Switzerland  
Spitz, E. (Editors)  
Agard Conference Proceedings No. 245, Millimeter and Submillimeter  
Wave Propagation and Circuits (September 1978) Munich, Germany  
\$MW \$TW \$LO #M

31. APPLICATION OF TWO GROUND-BASED MICROWAVE RADIOMETERS FOR INDIRECT DETER-  
MINATION OF THE TEMPERATURE PROFILE OF THE ATMOSPHERIC BOUNDARY LAYER

Schonwald, H.  
Meteorologisches Insti, Univ. of Hamburg, Hamburg, Germany  
Proceedings of the 8th European Microwave Conference, 38-42  
(September 1978) Paris, France  
Publ: Microwave Exhibitions and Publishers Ltd., Sevenoaks, England

32. ESTIMATES OF BRIGHTNESS TEMPERATURES FROM SCANNING  
RADIOMETRIC DATA

Stogryn, A.  
Aerojet Electro Systems Co., Azusa, CA  
IEEE Transactions on Antennas and Propagation, Vol. AP-26,  
No. 5, pp 720-726  
(September 1978)

33. ATMOSPHERIC SOUNDING NEAR 118 GHZ

Ali, A. D. S.; Rosenkranz, P. W.; Staelin, D. H.  
MIT, Cambridge, MA, USA  
J. Appl. Meteorol. (USA), Vol. 19, No. 10, 1234-8 (October 1980)  
Coden: JAMOAX

34. THE TIROS-N MICROWAVE SOUNDER UNIT

Swanson, P. N.; Harris, W. M.; Johnston, E. J.; Soltis, F. S.  
Jet Propulsion Lab., Pasadena, CA, USA  
Schwab, L.M.: Douglas, J.H. (Editors)  
Technology Growth for the 80s. 1980 IEEE MTT-S International Microwave  
Symposium Digest, 123-5 (May 1980) Washington, DC, USA  
Publ: IEEE, New York, NY

35. THE PRINCIPLE AND TESTS OF MICROWAVE REMOTE SENSING ATMOSPHERIC  
SOUNDING

Zhao Bolin; Yin Hong; Li Huixin; Du Jinlin; Hu Chengda; Zhu Yuanjing  
Dept. of Geophys., Peking Univ., Peking, China  
Sci. Sin. (China), Vol. 24, No. 3, 363-73 (March 1981)  
Coden: SSINAV

THEORETICAL

1. COMPUTATIONS OF DOWNWARD RADIATION FLUX BASED UPON A RANDOM SAMPLE  
OF RADIOSONDE OBSERVATIONS, AND CORRELATION OF THE RESULTS WITH  
CORRESPONDING SIMULATED NIMBUS II SATELLITE AIR MASS PROPERTIES

Tupaz, Jesus Bonifacio (Masters Thesis)  
Naval Postgraduate School, Monterey, Calif. (June 1967)

2. INVERSION OF RADIOMETRIC MEASUREMENTS

Gille, J. C.  
Florida State Univ. Tallahassee, Fla., USA  
Bull. Amer. Meteorol. Soc., Vol. 49, No. 9, 903-13 (September 1968)

3. METEOROLOGICAL OBSERVATIONS WITH PASSIVE MICROWAVE SYSTEMS

Kreiss, W. T.  
Univ. of Washington  
Univ. Microfilms, Ann Arbor, MI., USA Order No. 68 12, 700 (1968)

4. CAPABILITIES OF MILLIMETER WAVE RADIOMETERS FOR REMOTELY MEASURING TEMPERATURE PROFILES PERTINENT TO AIR POLLUTION

Mount, W. D.; Anway, A. C.; Wick, C. V.; Maloy, C. M.  
Sperry Rand Research Center  
Rept No: SRRC-CR-68-19 (1968)

5. ON THE STATISTICAL RELATION BETWEEN GEOPOTENTIAL HEIGHT AND TEMPERATURE PRESSURE PROFILES

Smith, W. L.; Fritz, S.  
Nat. Environ. Sat. Serv., NOAA, Washington  
Rept No: NESCTM-18 (December 1969)

6. ACCURACY OF WATER VAPOR EMISSIONS COMPUTATIONS USING THE STATISTICAL BAND MODEL

Andritschke, S.  
Ludwig Maximilians Univ., Munchen, Germany  
Beitr. Phys. Atmos. (Germany), Vol. 43, No. 3, 171-88 (1970)

7. INVERSE PROBLEMS IN RADIATIVE TRANSFER: DETERMINATION OF ATMOSPHERIC PARAMETERS

Chahine, M. T.  
Jet Propulsion Laboratory, Pasadena, CA  
Journal of Atmospheric Sciences, Vol. 27, pp 960-67,  
(September 1970)

8. SIMULATION STUDIES RELATED TO GARP

Jastrow, R.; Hale, M.  
Institute for Space Studies, Goddard Space Flight Center,  
NASA, N. Y., NY  
Bul. of American Meteorological Society, Vol. 51, No. 6,  
pp 490-513 (June 1970)

8. ITERATIVE SOLUTION OF THE RADIATIVE TRANSFER EQUATION FOR THE TEMPERATURE AND ABSORBING GAS PROFILE OF AN ATMOSPHERE

Smith, W. L.  
Nat. Envir. Sat. Service, NOAA, Washington, D.C., USA  
Appl. Opt. (USA), Vol. 9, No. 9, 1993-9, (September 1970)

9 POTENTIAL CAPABILITIES OF FOUR LOWER ATMOSPHERE REMOTE SENSING  
TECHNIQUES

Beran, D. W.; Chadwick, R. B.; Decker, M. T.; Hall, F. F.; Littel, C. G.  
Wave Prop. Lab., NOAA, Boulder, Colorado  
Rept No: WPL-20 (NOAA) (December 1971)

10. A REGULARIZATION METHOD AS USED FOR THE DETERMINATION OF ATMOSPHERIC  
WATER VAPOR VERTICAL PROFILES

Glasko, V. B.; Timofeev, YU. N.; Tikhonravov, A. V.  
Izvi Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol 7, No. 6, 583-9  
(June 1971)  
Coden IFAOAV  
Bull. Acad. Sci USSR, Atmos. and Ocean Phys. Ser. (USA)  
Coden: BSUAAZ

11. INVESTIGATION OF THE 60 GHZ ATMOSPHERIC OXYGEN MANTLE FOR APPLICATION TO  
VERTICAL SENSING

Guidice, Donald A.  
Air Force Cambridge Research Labs  
Rept No: AFCRL-71-0116 (January 1971)

12. APPLICATION OF SATELLITE INFRARED RADIATION MEASUREMENTS TO NUMERICAL  
ANALYSIS AND FORECASTING

Woolf, H. M.; Smith, W. L.; Hayden, C. M.  
Verh. Deut. Phys. Ges. (Germany), No. 11, 884 (1971)  
Coden: VDPEAZ

13. A GENERAL RELAXATION METHOD FOR INVERSE SOLUTION OF THE FULL RADIATIVE  
TRANSFER EQUATION

Chahine, M. T.  
Jet Propulsion Lab., Pasadena, CA  
Journal of Atmospheric Sciences, Vol. 29, No. 4, pp 740-47  
(May 1972)

14. UNIVERSAL TRANSMITTANCE REPRESENTATIONS FOR APPLICATION TO ITPR  
MEASUREMENTS

Davis, Paul A.  
Stanford Research Inst.  
Final Rept Contract: NOAA-2-35136 (May 1972)

15. ON OPTIMAL CONDITIONS FOR INDIRECT PROBING OF THE ATMOSPHERE

Pokrovskii, O. M.

Leningrad State Univ., USSR

Izv. Akad. Nauk SSSR Fiz. Atmos. and Okeana Vol. 8, No. 10, 1094-7  
(October 1972)

Coden: IFAOAV

Trans In: Bull. Acad. Sci. USSR Atmos. and Ocean Phys. Ser. (USA)

Coden: BSUAAZ

16. STATISTICAL VERSUS NONSTATISTICAL TEMPERATURE INVERSION  
METHODS

Smith, W. L.; Fleming, H. E.

Natl. Envir. Sat. Service, NOAA, Washington

NASA-TM-X-62150 (August 1972)

17. STUDY OF THE EFFECTS OF ATMOSPHERIC TURBIDITY ON SATELLITE  
TEMPERATURE SOUNDINGS, RADIATION ENERGETICS, AND POLARIZATION  
OF TERRESTRIAL INFRARED RADIATION

Stowe, Larry L. Jr; Giroux, Hans D.

California University, NOAA

Final rept. (July 1972)

Grant: NOAA-E143-59 (G)

18. STATISTICAL RETRIEVAL TECHNIQUES FOR OBTAINING STRATOSPHERIC  
STRUCTURE PROFILES FROM LIMB RADIANCE MEASUREMENTS

Bailey, R. L.; Gillie, J. C.

Nat. Center Atmospheric Res., Boulder, Colo., USA

EOS Trans. Am. Geophys. Union (USA), Vol. 54, No. 4, 278 (April 1973)

19. ESTABLISHMENT OF THE VERTICAL HUMIDITY PROFILE TO THE VERTICAL  
TEMPERATURE PROFILE

Baslova, T. I.

Foreign Technology Div., Wright Patterson AFB, Ohio

Rept No: FTD-HT-23-602-73 (July 1973)

20. INDIRECT VERTICAL PROFILE DETERMINATION OF THE ATMOSPHERIC MOISTURE  
CONTENT

Bogomolov, O. S.; Panin, B. D.

Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol 9, No. 4, 363-70  
(April 1973)

Coden: IFAOAV

Trans In: Bull. Acad. Sci. USSR. Atmos. and Ocean Phys. Ser. Vol. 9,  
No. 4

Coden: BSUAAZ

21. A RADIATION MODEL FOR CALCULATING ATMOSPHERIC CORRECTIONS TO REMOTELY SENSED INFRARED MEASUREMENTS, VERSION 2

Boudreau, R. D.

NASA

Rept No: NASA-TM-X-69939; ERL-053 (September 1973)

22. COVARIANCE MATRICES AND MEANS OF ATMOSPHERIC PLANCK FUNCTION PROFILES FOR APPLICATION TO TEMPERATURE SOUNDING FROM SATELLITE MEASUREMENTS

Crosby, D. S.; Fleming, H. E.; Wark, D. Q.

Nat. Envir. Sat. Serv., Washington, D. C.

J. Atmos. Sci. (USA), Vol. 30, No.1, 141-4 (January 1973)

Coden: JAHSAK

23. THE DEVELOPMENT OF TECHNIQUES FOR OPERATIONAL EXPLOITATION OF SATELLITE OBSERVED SOUNDING DATA FOR RESOLUTION OF ATMOSPHERIC THERMAL STRUCTURE VARIABILITIES

Holl, Manfred M.

Meteorology International Inc.

Rept No: M-181-3 (June 1973)

24. METHOD TO APPLY HOMOGENEOUS-PATH TRANSMITTANCE MODELS TO INHOMOGENEOUS ATMOSPHERES

Weinreb, M. P.; Neuendorffer, A. C.

National Environmental Satellite Service, NOAA,

Washington, D.C.

Journal of Atmospheric Sciences, Vol. 30, pp 662-66

(May 1973)

25. ATMOSPHERIC MEASUREMENTS AT MILLIMETER WAVELENGTHS

Barrett, Alan H.; Lam, Kai S.; Staelin, David H.

Massachusetts Inst of Tech Cambridge Research Lab of Electronics

Air Force Cambridge Research Labs

Final Rept. (December 1974)

Rept. No. AFCRL-TR-74-0633

26. AN ITERATIVE SCHEME FOR DETERMINING SEA SURFACE TEMPERATURES, TEMPERATURE PROFILES, AND HUMIDITY PROFILES FROM SATELLITE MEASURED INFRARED DATA

Chow, M. D.

New York Univ., USA

J. Geophys. Res. (USA), Vol. 79, No. 3, 430-4 (January 1974)

Coden: JGREA2

27. ON INFORMATION RELIABILITY OF SPECTRAL MEASUREMENTS OF HUMIDITY IN STRATOSPHERE AND MESOSPHERE

Kondratyev, K. YA.; Buznikov, A. A.; Kozlov, V. P.; Pokrovskiy, A. G.  
Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol. 10, No. 10,  
Coden: IFAOAV, 1041-53 (October 1974)  
Trans In: Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys. (USA)  
Coden: BSUAAZ

28. AN ANALYTICAL TRANSFORMATION FOR REMOTE SENSING OF CLEAR-COLUMN ATMOSPHERIC TEMPERATURE PROFILES

Chahine, M. T.  
Jet Propulsion Lab., California Inst. of Technology, Pasadena, CA. (USA)  
J. Atmos. Sci. (USA), Vol. 32, No. 10, 1946-1952 (October 1975)  
Coden: JAHSAK

29. USE OF INFRARED RADIANCE MEASUREMENTS IN DYNAMIC ANALYSIS

Davis, Paul A.  
Stanford Research Inst, Environmental Prediction Research Facility:  
EPRF-TR-10-75 (SRI) (October 1975)

30. SELECTION OF OPTIMUM SPECTRAL RANGE FOR SATELLITE PROBING OF ATMOSPHERIC WATER VAPOUR

Ivanov, V. V.; Markov, M. N.  
Trans In: COSMIC RES. (USA), Vol. 13, No. 6, 744-51 (November 1975)

31. POSSIBILITY OF THE APPLICATION OF MEASUREMENTS OF DOWNWARD INFRARED RADIATION FOR DETERMING CHARACTERISTICS OF THE MOISTURE CONTENT IN THE ATMOSPHERE

Kuznetsov, A. D.; Timofeev, YU. M. (May 1975)  
Trans In: Izv. Acad. Sci. USSR Atmos. and Oceanic Phys.  
(USA) Coden: BSUAAZ

32. ANALYTICAL SOLUTION OF A MODEL RADIATIVE EQUATION ARISING IN ATMOSPHERIC SOUNDING

Barcilon, V.  
Dept. of Geophys. Sci., Univ. of Chicago, Chicago, IL, USA  
J. Quant. Spectrosc. and Radiat. Transfer (GB), Vol. 16, No. 12,  
1031-41 (December 1976)  
Coden: JQSRAE

33. AN ALGORITHM TO RETRIEVE WATER VAPOR INFORMATION FROM SATELLITE MEASUREMENTS

Crane, Robert K.  
Environmental Research and Technology Inc.  
Final rept.  
Rept. No. NEPRF-TR-7-76-(ERT) (November 1976)

34. TEMPERATURE PROFILES DERIVED THROUGH THE INVERSION OF A SYSTEM OF FIRST ORDER DIFFERENTIAL EQUATIONS

Gatlin, J. A.; Englar, T. S.  
Nasa Goddard Space Flight Center, NASA, Greenbelt, MD, USA  
Acta Astronaut, (GB), Vol. 4, No. 5-6, 749-68. (October 1976)  
Anaheim, Calif., USA

35. CERTAIN ACTUAL PROBLEMS IN THE THERMAL SOUNDING FROM A SATELLITE

Golovko, V. A.  
Kanner Associates  
Rept No: NASA-TT-F-17252 (October 1976)

36. ON OPTIMIZATION OF CONDITION OF OUTGOING RADIATION MEASUREMENTS IN THE PROBLEM OF INDIRECT RETRIEVAL OF THE VERTICAL WATER VAPOUR PROFILE

Kozlov, V. P.; Timofeev, YU. M.; Kuznetsov, A. D.  
Trans In: Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys. (USA) (May 1976)  
Coden: BSUAAZ

37. ATMOSPHERIC TRANSMITTANCE OF AN ABSORBING GAS: A COMPUTATIONALLY FAST AND ACCURATE TRANSMITTANCE MODEL FOR ABSORBING GASES WITH CONSTANT MIXING RATIOS IN INHOMOGENEOUS ATMOSPHERES

McMillin, L. M.; Fleming, H. E.  
Nat. Environmental Satellite Service, NOAA, Washington, D. C. USA  
App. Opt. (USA) Vol. 15, No. 2, 358-63 (February 1976)  
Coden: APOPAI

38. THE USE OF EIGENVECTORS OF STATISTICAL COVARIANCE MATRICES FOR INTERPRETING SATELLITE SOUNDING RADIOMETER OBSERVATIONS

Smith, W. L.; Woolf, H. M.  
Nat. Envir. Sat. Ser., NOAA Washington, DC  
J. Atmos. Sci. (USA), Vol. 33, No. 7, 1127-40 (July 1976)  
Coden: JAHSAK

39. INVERSION METHODS IN ATMOSPHERIC REMOTE SOUNDING

Deepak, A.

NASA

Rept No: NASA-CP-004 (1977)

40. ERROR ANALYSES OF OPERATIONAL SATELLITE SOUNDINGS OF VERTICAL TEMPERATURE PROFILES

Mount, Wayne D.; Fow, B. Richard; Gustafson, Donald E.; Ledsham, William  
Geo Atmospheric Corp

Rept No: GAC-78-CR-001, AFGL-TR-77-0248 (December 1977)

41. OBJECTIVE ANALYSIS OF THE HUMIDITY FIELD IN THE ATMOSPHERE ACCORDING TO REMOTE SOUNDING DATA

Pokrovskii, O. M.; Ivanykin, E. E.

Leningrad State Univ. Leningrad, USSR

Trans In: Sov. Meteorol. and Hydrol. (USA), No. 2, 31-8 (1977)

Coden: SMHYDK

42. A COMPUTATIONAL METHOD FOR SPECTRAL MOLECULAR ABSORPTION USING AN IMPROVED VOIGT ALGORITHM

Van Derwook, Peter Clark (Masters Thesis)

Texas University (May 1977)

43. REMOTE SENSING ATMOSPHERIC SOUNDING OF THE CLOUDY ATMOSPHERE BY THE GROUND BASED MICROWAVE RADIOMETRY

Chao Bo Lin; Qun Yu

Dept. of Geophys., Univ. of Peking, Peking, China

Acta Sci. Nat. Univ. Pekin, (China), No. 4, 26-36 (1978)

Coden: PCTHAP

44. AN INFRARED RADIATIVE TRANSFER MODEL  
PART I: MODEL DESCRIPTION AND COMPARISON OF OBSERVATIONS  
WITH CALCULATIONS

Ellingson, R. G.

Meteorology Program, University of Maryland, College Park, MD

Gille, J. C.

National Center for Atmospheric Research, Boulder, CO

Journal of Atmospheric Science, Vol 35, No. 3 pp 523-45

(March 1978)

45. INFRARED REMOTE TEMPERATURE MEASUREMENTS ITS PHYSICS WITH REFERENCE TO COMPLEXITIES, APPROXIMATIONS AND LIMITATIONS INVOLVED. II. TEMPERATURE PROFILES RETRIEVAL

Gupta, R. K.

Indian Inst. of Tropical Meteorology, Pune, India  
J. Indian Inst. Sci., Vol. 60, No. 10, 253-84 (October 1978)  
Coden: JIISAD

46. AN EXTENDED KALMAN-BUCY FILTER FOR ATMOSPHERIC TEMPERATURE PROFILE RETRIEVAL WITH A PASSIVE MICROWAVE SOUNDER

Ledsham, W. H.; Staelin, D. H.

Dept. of Electrical Engng. and Computer Sci., Mit. Cambridge, MA USA  
J. Appl. Meteorol. (USA), Vol. 17, No. 7, 1023-33 (July 1978)  
Coden: JAMOAX

47. PROFILES BY LEAST-SQUARE METHODS

Nieuwstadt, F.

Royal Netherlands Meteorological Inst., De Bilt, Netherlands  
Boundary Layer Meteorol. (Netherlands) Vol 14., No. 2, 235-46 (March 1978)  
Coden: BLMEBR  
Journal Paper

48. APPLICATIONS OF ESTIMATION THEORY TO INVERSE PROBLEMS IN METEOROLOGY

Gustafson, D. E.; Ledsham, W. H.

Sci. Systems, Inc., Cambridge, MA, USA

Proceedings of the 1978 IEEE Conference on Decision and Control  
Including the 17th Symposium on Adaptive Processed 405, (January 1979)  
San Diego, CA, USA  
Publ: IEEE, New York, USA  
1461 pp.

49. ON THE OPTIMAL CONDITIONS OF OUTGOING RADIATION MEASUREMENTS ON THE CO<sub>2</sub> ABSORPTION BANDS AND THE ACCURACY OF THE THERMAL ATMOSPHERIC SOUNDING METHOD

Kozlov, V. P.; Timofeev, YU. M.

Izv. Akad. Nauk SSSR, Fiz. Atmos. and Okeana, Vol. 15, No. 12, 1253-61  
(December 1979)

Coden: IFAOAV

Trans In: Izv. Acad. Sci. USSR, Atmos. and Oceanic Phys. USA

Coden: BSUAZ

50. FOURIER TRANSFORM METHOD FOR CALCULATING THE TRANSMITTANCE  
OF INHOMOGENOUS ATMOSPHERES

Mankin, W. G.  
National Center for Atmospheric Research, Boulder, CO  
Applied Optics, Vol. 18, No. 20, pp 3426-33  
(15 October 1979)

51. COMPARATIVE STUDY OF INVERSION TECHNIQUES,  
PART I: ACCURACY AND STABILITY

Wolfson, N.; Joseph, J. H.; Mekler, Y.  
Tel Aviv University, Tel Aviv, Israel  
Journal of Appl. Meteorology, Vol. 18, pp 543-55  
(April 1979)

52. COMPARATIVE STUDY OF INVERSION TECHNIQUES,  
PART II: RESOLVING POWER, CONSERVATION OF NORMALIZATION  
AND SUPERPOSITION PRINCIPLES

Wolfson, N.; Mekler, Y.; Joseph, J. H.  
Tel Aviv University, Tel Aviv, Isreal  
Journal of Appl. Meteorology, Vol. 18, pp 556-61  
(April 1979)

53. THEORETICAL PROBLEMS OF INFRARED REMOTE SENSING OF THE ATMOSPHERE

Zeng Qingcun  
Inst. of Atmospheric Phys., Acad. of Sinica, Peking, China  
Sci. Sin. (China), Vo. 22, No. 5, 555-64 (May 1979)  
Coden: SSINAV

54. A POSSIBLE SCHEME FOR IMPROVING VERTICAL RESOLUTION AND ACCURACY  
OF SATELLITE TEMPERATURE RETRIEVAL

Gaoxiang, Zhao  
Academia Sinica, Beijing (China). Inst. of Atmospheric Physics  
Scientia Sinica, Vol 25, No. 5, 1019-24 (December 1980)

55. COMPARISON BETWEEN DIFFERENT RETRIEVAL METHODS FOR INFRARED REMOTE  
SOUNDING OF TEMPERATURE PROFILES AND ERROR ANALYSIS

Huang Rong-Hui; Yuan Chong-Guang  
Sci. Atmos. Sin. (China), Vol. 4, No. 1, 49-57 (March 1980)  
Coden: TKHSDX

56 INVERSION OF GROUND BASED RADIOMETRIC DATA BY KALMAN FILTERING

Basili, P.; Ciotti, P.; Solimini, D.  
Facolta Di Ingegneria, Univ. Di Roma, Rome, Italy  
Radio Sci. (USA), Vol 16, No. 1, 83-91 (January 1981)

57. TEMPERATURE PROFILING BY RAYLEIGH SCATTERING LIDAR

Schwiesow, R. L.; Lading, L.  
Environmental Research Labs., NOAA, Boulder, CO  
Applied Optics, Vol. 20, No. 11, pp 1972-79  
(1 June 1981)

58. THE USE OF SMOOTHING SPLINES FOR RESTORATION OF THE H<sub>2</sub>O  
ABSORPTION MOLECULAR COEFFICIENT PROFILE

Voskoboinikov, YU.E.; Mitsel, A. A.  
Trans from: Izv. Acad. Sci. USSR Atmos. and Oceanic Phys. (USA)  
(February 1981)  
Coden: BSUAAZ



SECTION 3: REFERENCED BY INSTRUMENTS

ESMR/SMMR

(Electrically Scanned Microwave Radiometer/  
Scanning Multichannel Microwave Radiometer)

1. REMOTE SENSING OF ATMOSPHERIC WATER VAPOR, LIQUID WATER AND WIND SPEED AT THE OCEAN SURFACE BY PASSIVE MICROWAVE TECHNIQUES FROM THE NIMBUS-5 SATELLITE

Chang, A. T. C.; Wilheit, T. T.  
Goddard SFC  
NASA, Greenbelt, MD  
NASA Technical Memorandum 79568  
(June 1977)

2. REMOTE SENSING OF ATMOSPHERIC WATER VAPOR, LIQUID WATER, AND WIND SPEED AT THE OCEAN SURFACE BY PASSIVE MICROWAVE TECHNIQUES FROM THE NIMBUS 5 SATELLITE

Chang, A. T. C.; Wilheit, T. T.  
Goddard Space Flight Center, NASA Greenbelt, MD, USA  
Radio Sci. (USA), Vol. 14, No. 5, 793-02 (September 1979)  
Coden: RASCAD

3. AN EVALUATION OF EARLY OPERATIONAL TEMPERATURE SOUNDINGS FROM TIROS-N

Phillips, N.; McMillan, L.; Gruber, A.; Wark, D.  
National Meteorological Center, NOAA, Washington  
Bull. Amer. Met. Soc., Vol. 60, No. 10, 1188-97 (October 1979)

4. AN ALGORITHM FOR RETRIEVAL OF OCEAN SURFACE AND ATMOSPHERIC PARAMETERS FROM THE OBSERVATIONS OF THE SCANNING MULTICHANNEL MICROWAVE RADIOMETER (SMMR)

Wilheit, T. T.; Chang, A. T. C.  
Goddard SFC, NASA, Greenbelt, MD  
NASA Technical Memorandum 80277  
(May 1979)

5. AN ALGORITHM FOR RETRIEVAL OF OCEAN SURFACE AND ATMOSPHERIC PARAMETERS FROM THE OBSERVATIONS OF THE SCANNING MULTICHANNEL MICROWAVE RADIOMETER

Wilheit, T. T.; Chang, A. T. C.  
Goddard Space Flight Center, NASA, Greenbelt, MD, USA  
Radio Sci. (USA) Vol. 15, No. 3, 525-44 (June 1980)  
Coden: RASCAD

6. REMOTE SENSING OF PRECIPITABLE WATER OVER THE OCEANS FROM NIMBUS-7  
MICROWAVE MEASUREMENTS

Prabhakara, C.; Chang, H. D.; Chang, A. T. C.  
Goddard SFC, Greenbelt, MD  
NASA Technical Memorandum 82117  
(April 1981)

HIRS

(High Resolution Infrared Radiometer System)

1. HIGH RESOLUTION INFRARED RADIATION SOUNDER (HIRS) FOR THE NIMBUS  
SPACECRAFT

Koenig, E. W.  
ITT Aerospace, Ft. Wayne, Ind.  
Rept. No. NASA-CR-144743 (December 1975)

2. SOUNDER DESIGN CONSIDERATIONS IN THE SELECTION OF TEMPERATURE  
SENSING CHANNELS

Halem, M.; Ming-Dah Chow  
Inst. For Space Studies, Goddard Space Flight Center, NASA,  
New York, NY, USA  
J. Appl. Meteorol. (USA), Vol.15, No.4, 394-401 (April 1976)  
Coden: JAMOAX

3. APPLICATION OF AN EFFICIENT METHOD FOR CALCULATING TRANSMITTANCE PROFILES

Gomez, R. B.; Potter, M. T.; Pierluissi, J. H.  
Atmospheric Sci. Lab., White Sands Missile Range, NM, USA  
Trolinger, J.; Moore, W.W. (Editors)  
Proceedings of the Society of Photo Optical Instrumentation  
Engineers, Vo. 125 Advances in Laser Technology for the Atmospheric  
Sciences 24-9, San Diego, CA. USA (August 1977)

4. ON THE EFFECT OF SURFACE EMISSIVITY ON TEMPERATURE  
RETRIEVALS

Kornfield, J.; Susskind, J.  
NASA Inst. for Space Studies, Goddard SFC, New York, NY  
Monthly Weather Rev., Vol. 105, No. 12, pp 1605-08  
(December 1977)

5. ATMOSPHERIC STRUCTURE DEDUCED FROM ROUTINE NIMBUS 6  
SATELLITE DATA

Moyer, V.; Scoggins, J. R.; Chou, N-M.; Wilson, G. S.  
Texas A & M University, College Station, TX  
Monthly Weather Rev., Vol. 106, pp 1340-52  
(September 1958)

6. A COMPUTATIONAL METHOD FOR SPECTRAL MOLECULAR ABSORPTION USING  
AN IMPROVED VOIGT ALGORITHM

Van Derwook, Peter Clark (Masters Thesis)  
Texas University (May 1977)

7. ATMOSPHERIC ICE AND WATER CONTENT DERIVED FROM PARAMETERIZATION  
OF NIMBUS 6 HIGH-RESOLUTION INFRARED SOUNDER DATA

Feddes, R. G.; Kuo Nan Liou  
Dept. Of Meteorology, Univ. of Utah, Salt Lake City, UT, USA  
J. Appl. Meteorol. (USA), Vol. 17, No. 4, 536-51 (April 1978)  
Coden: JAMOAX

8. IMPACT OF NIMBUS-6 TEMPERATURE SOUNDINGS ON AUSTRALIAN REGION FORECASTS

Kelly, G. A. M.; Mills, G. A.; Smith, W. L.  
Australian Numerical Meteorology Res. Centre, Melbourne, Australia  
Bull. Am. Meteorol. Soc. (USA), Vol. 59, No. 4, 893-405 (April 1978)  
Coden: BAMIAT

9. PRELIMINARY EVALUATION OF INITIAL ATMOSPHERIC MOISTURE FROM  
THE TIROS-N SOUNDING SYSTEM

Gruber, A.; Watkins, C. D.  
National Environmental Satellite Service, NOAA, Washington, D.D.  
Satellite Hydrology, Fifth Annual William T. Pecora Memorial  
Symposium, pp 115-123  
(June 1979)

10. HIGH RESOLUTION INFRARED RADIATION SOUNDER MOD 2 (HIRS 2)

Koenig, E. W.  
ITT Aerospace Optical Div.  
Final Project Report 1979  
Rept No: NASA-CR-160030 (August 1979)

11. THE TIROS N OPERATIONAL VERTICAL SOUNDER

Smith, W. L., Woolf, H. M.; Hayden, C. M.; Wark, D. Q.; McMillin, L. M.  
Nat. Envir. Sat. Serv., NOAA, Madison, WI, USA  
Bull. Am. Meteorol. Soc. (USA), Vol. 60, No. 10, 1177-87 (October 1979)  
Coden: BAMIAT

12. COMPARISONS BETWEEN NIMBUS 6 SATELLITE AND RAWINSONDE SOUNDINGS  
FOR SEVERAL GEOGRAPHICAL AREAS

Cheng, N. M.; Scoggins, J. R.  
Texas A and M University  
Rept. No. NASA-RP-1073; M-330 (1981)

13. COMPARISONS BETWEEN NIMBUS 6 SATELLITE AND RAWINSONDE SOUNDINGS FOR  
SEVERAL GEOGRAPHICAL AREAS

Cheng, N. M.; Scoggins, J. R.; Texas A and M University  
Rept No. NASA-RP-1073; M-330 (1981)

14. ATMOSPHERIC STRUCTURE DETERMINED FROM SATELLITE DATA

Knight, Keith Shelburne; Scoggins, James R.  
Texas A and M, NASA Hdqt. Washington.  
Grant: DAAG29-76-G-0078 (January 1981)

15. VERTICAL MASS AND MOISTURE STRUCTURE FROM TIROS-N

Smith, W. L.; Nagle, F. W.; Handen, C. M.; Woolf, H. M.  
National Earth Satellite Service, University of Wisconsin,  
Madison, WI  
Bull. Am. Meteorological Soc., Vol. 62, No. 3, pp 388-93  
(March 1981)

HRIR

(High Resolution Infrared Radiometer)

1. THE IMPROVEMENT OF CLEAR COLUMN RADIANCE DETERMINATION WITH A  
SUPPLEMENTARY 3.8 MICROMETER WINDOW CHANNEL

Smith, William L.  
Nat. Environ. Sat. Serv., NOAA, Washington  
Rept No: NESCTM-16 (July 1969)

ITPR

(Infrared Temperature Profile Radiometer)

1. UNIVERSAL TRANSMITTANCE REPRESENTATIONS FOR APPLICATION TO ITPR  
MEASUREMENTS

Davis, Paul A.  
Stanford Research Inst.  
Final Rept Contract: NOAA-2-35136 (May 1972)

2. NIMBUS-5 SOUNDER DATA PROCESSING SYSTEM. PART I. MEASUREMENT  
CHARACTERISTICS AND DATA REDUCTION PROCEDURES

Smith, W. L.; Woolf, H. M.; Abel, P. G.; Hayden, C. M.; Chalfant, M.  
Nat. Envir. Sat. Service, NOAA, Washington  
Technical Memo. NOAA-TM-NESS-57 (June 1974)

3. NIMBUS-5 SOUNDER DATA PROCESSING SYSTEM. PART II. RESULTS

Smith, W. L.; Woolf, H. M.; Hayden, C. M.; Shen, W. C.  
Nat. Envir. Sat. Serv., NOAA, Washington (USA)  
Technical Memo. NOAA-TM-NESS-71 (June 1974)

4. NIMBUS-5 SOUNDER DATA PROCESSING SYSTEM. PART 2: RESULTS

Smith, W. L.; Woolf, H. M.; Hayden, C. M.; Shen, W. C.  
Nat. Envir. Sat. Serv., NOAA, Washington (USA)  
Rept No: NASA-CR-146089; NOAA-75082801-PT-2 (July 1975)

5. A COMPARISON BETWEEN NIMBUS 5 THIR AND ITPR TEMPERATURES AND  
DERIVED WINDS WITH RAWINSONDE DATA OBTAINED IN THE AVE 2 EXPERIMENT

Arnold, J. E.; Scoggins, J. R.; Fuelberg, H. E.  
Texas A&M University  
Rept No: NASA-CR-2757; M-180 (October 1976)

IRIS

(Infrared Interferometer Spectrometer)

1. INTERFEROMETER EXPERIMENT ON NIMBUS 3: PRELIMINARY RESULTS

Hanel, R.; Conrath, B.  
Goddard, NASA, Greenbelt, MD., USA  
Science (USA) Vol.165, No.3899 1258-60 (1969)

2. THERMAL EMISSION SPECTRA OF THE EARTH AND ATMOSPHERE FROM THE NIMBUS 4 MICHELSON INTERFEROMETER EXPERIMENT

Hanel, R. A.; Conrath, B. J.  
Goddard, NASA, Greenbelt, MD., USA  
Nature (GB) Vol. 228, No. 5267, 143 5 (1970)

3. APPLICATION OF STEPWISE MULTIPLE REGRESSION TECHNIQUES TO INVERSION OF NIMBUS "IRIS" OBSERVATIONS

Ohring, G.  
GCA Corporation, Bedford, MA  
Monthly Weather Review, Vol. 100, No. 5, pp 336-44  
(May 1972)

4. REMOTE SOUNDING OF STRATOSPHERIC TEMPERATURES USING HIGH RESOLUTION RADIANCE MEASUREMENTS FROM THE IRIS-D

Gallery, W. O.  
Chicago University.  
Report No: NASA-CR-141130 (December 1974)

5. AN INFRARED RADIATIVE TRANSFER MODEL  
PART I: MODEL DESCRIPTION AND COMPARISON OF OBSERVATIONS WITH CALCULATIONS

Ellingson, R. G.  
Meteorology Program, University of Maryland, College Park, MD  
Gille, J. C.  
National Center for Atmospheric Research, Boulder, CO  
Journal of Atmospheric Science, Vol 35, No. 3 pp 523-45  
(March 1978)

LI

(Laser Instruments)

1. OBSERVATION OF RAMAN SCATTERING BY WATER VAPOR IN THE ATMOSPHERE

Melfi, S. H.; Lawrence, J.D., Jr.  
NASA, Langley, Hampton, VA  
Appl. Phys. Letters (USA), Vol. 15, No. 9, 295-7 (1969)

2. COMPARISONS OF  $H_2O$  VAPOR PROFILES OBTAINED BY RADIOSONDE AND LASER BACKSCATTER

Cooney, John A.  
Drexel Inst. of Tech Philadelphia PA  
Rept No: Scientific 3  
Agency: AFCRL (1970)

3. ATMOSPHERIC TEMPERATURE PROFILES USING SATELLITE BORNE LASER

Gale, W. A.  
Bellcomm, Inc.  
Rept No: NASA-CR-108907; TM-70-1011-1

4. ATMOSPHERIC WATER VAPOUR MEASUREMENT BY RAMAN LIDAR

Strauch, R. G.; Derr, V. E.; Cupp, R. E.  
Nat. Envir. Sat. Service, NOAA, Boulder, Colo. USA  
Remote Sensing Environ. (USA) Vol 2, No. 2, 101 (1972)  
Coden: RSEEA7

5. A METHOD FOR EXTENDING THE USE OF RAMAN LIDAR TO DAYTIME

Cooney, J. A.  
Drexel Univ., Philadelphia, PA., USA  
J. Appl. Meteorol. (USA), Vol. 12, No. 5, 888-90, (August 1973)  
Coden: JAMOAX

6. ATMOSPHERIC WATER VAPOR MEASUREMENTS WITH AN INFRARED (10-MUM) DIFFERENTIAL ABSORPTION LIDAR SYSTEM

Murray, E. R.; Hake, R. D., Rf.; Van Der Laan, J. E.; Hawley, J. G.  
Stanford Res. Inst., Menlo Park, CA, USA  
Appl. Phys. Lett. (USA), Vol. 28, No. 9, 542-3 (May 1976)

7. RAMAN SCATTERING CROSS SECTIONS FOR WATER VAPOR

Penney, C. M.; Lapp, M.  
General Electric Corp., Res. and Dev., Schenectady, NY, USA  
J. Opt. Soc. AM. (USA), Vo. 66, No. 5, 422-5 (May 1976)  
Coden: JOSAAH

8. A LASER METHOD OF OBSERVING SURFACE PRESSURE AND PRESSURE-ALTITUDE  
AND TEMPERATURE PROFILES OF THE TROPOSPHERE FROM SATELLITES

Smith, William L.; Platt, C. M. R.  
Nat. Envir. Sat. Serv., Washington (USA)  
Rept No: NOAA-TM-NESS-89 (July 1977)

9. REMOTE MEASUREMENTS OF GASES USING DIFFERENTIAL-ABSORPTION  
LIDAR

Murray, E. R.  
SRI International, Menlo Park, CA  
Optical Engineering, Vol. 17, No. 1, pp 30-38  
(January-February 1978)

10. MEASUREMENT OF ATMOSPHERIC TEMPERATURE PROFILES USING RAMAN LIDAR

Gill, R.; Geller, K.; Farina, J.; Cooney, J.; Cohen, A.  
Phys. and Atmospheric Sci. Dept. Drexel Univ. Philadelphia, PA, USA  
J. Appl. Meteorol. (USA), Vol. 18, No. 2, 225-7 (February 1979)  
Coden: JAMOAX

11. RAMAN LIDAR HUMIDITY SOUNDING OF THE ATMOSPHERIC BOUNDARY LAYER

Pourny, J. C.; Orszag, A.; Renaut, D.  
Ensta, Lab. D'optique Appliquee, Palaiseau, France  
Appl. Opt. (USA) Vol. 18, No. 8, 1141-8 (April 1979)  
Coden: APOPAI

12. LIDAR MEASUREMENTS OF ATMOSPHERIC HUMIDITY

Zakharov, V. M.; Kalachinskii, S. F.; Kostko, O. D.; Krikunov, G. A.;  
Zhiguleva, I. S.  
Trans In: Sov. Meteorol. and Hydrol. (USA), No. 8, 98-05 (1979)  
Coden: SMHYDK

13. DENSITY AND TEMPERATURE PROFILES OBTAINED BY LIDAR BETWEEN 35 AND 70 KM

Hauchecorne, A.; Chanin, M. L.  
Cnrs. Verrieres-Le-Buisson, France  
Geophys. Res. Lett. (USA), Vol. 7, No 8, 565-8 (August 1980)  
Coden: GPRLAJ

14. MESURE DE LA PRESSION ET DE LA TEMPERATURE ATMOSPHERIQUES PAR ABSORPTION DIFFERENTIELLE LIDAR: INFLUENCE DE LA LARGEUR D EMISSION LASER

Megie, G.  
Service d Aeronomie du CNRS  
Verrieres le Buisson, France  
Applied Optics, Vol. 19, No. 1, pp 34-43  
(January 1980)

15. COMPLEMENTARITY OF UV AND IR DIFFERENTIAL ABSORPTION LIDAR FOR GLOBAL MEASUREMENTS OF ATMOSPHERIC SPECIES

Megie, G.; Menzies, R. T.  
Jet Propulsion Lab., Pasadena, CA  
Applied Optics, Vol. 19, No. 7, pp 1173-83  
(April 1980)

16. TEMPERATURE PROFILING BY RAYLEIGH SCATTERING LIDAR

Schwiesow, R. L.; Lading, L.  
Environmental Research Labs., NOAA, Boulder, CO  
Applied Optics, Vol. 20, No. 11, pp 1972-79  
(1 June 1981)

MSU

(Microwave Sounding Unit)

1. MICROWAVE BLACKBODY CALIBRATION OF THE TIROS-N MICROWAVE SOUNDER UNIT

Iwasaki, R. S.  
Jet Propulsion Lab., Pasadena, Ca, USA  
1978 IEEE MTT-S International Microwave Symposium Digest 248-51 (1978)  
27-29 (June 1978) Ottawa, Canada  
489 pp.

2. THE TIROS-N MICROWAVE SOUNDER UNIT

Swanson, P. N.; Harris, W. M.; Johnston, E. J.; Soltis, F. S.  
Jet Propulsion Lab., Pasadena, CA, USA  
Schwab, L.M.: Douglas, J.H. (Editors)  
Technology Growth for the 80s. 1980 IEEE MTT-S International Microwave  
Symposium Digest, 123-5 (May 1980) Washington, DC, USA  
Publ: IEEE, New York, NY

NEMS/SCAMS

(Nimbus E Microwave Spectrometer/  
Scanning Microwave Spectrometer)

1. MICROWAVE RADIOMETRIC MEASUREMENTS OF ATMOSPHERIC TEMPERATURE AND  
WATER FROM AN AIRCRAFT

Rosenkranz, P. W.; Barath, F. T.; Blinn, J. C., III; Johnston, E. J.;  
Lenoir, W. B.; Staelin, D. H.; Waters, J. W.  
Calif. Inst. Technol., Pasadena, CA., USA  
J. Geophys. Res. (USA), Vol. 77, No 30, 5833-44, (October 1972)  
Coden: JGREA2

2. MICROWAVE SPECTROMETER ON THE NIMBUS 5 SATELLITE: METEOROLOGICAL AND  
GEOPHYSICAL DATA

Staelin, D. H.; Barrett, A. H.; Waters, J. W.; Barath, F. I.;  
Johnson, E. J.; Rosencranz, P. W.; Gaut, N. E.; Lenoir, W. B.  
M.I.T., Cambridge, Mass.  
Science (USA), Vol. 192, No. 4119, 1339-41 (December 1973)  
Coden: SCIEAS

3. REMOTE SENSING OF STRATOSPHERIC AND MESOSPHERIC TEMPERATURE BY  
MICROWAVE RADIOMETRY

Waters, J. W.; Staelin, D. H.  
MIT, Cambridge, MASS., USA  
Eos Trans. Am. Geophys. Union (USA), Vol. 54, No. 4, 278 (April 1973)

4. MICROWAVE ATMOSPHERIC TEMPERATURE SOUNDING: EFFECTS OF CLOUDS  
ON THE NIMBUS 5 SATELLITE DATA

Staelin, D. H.; Cassel, A. L.; Kunzi, K. F.; Pettyjohn, R. L.;  
Poon, R. K. L.; Rosenkranz, P. W.; Waters, J. W.  
Res. Lab. of Electronics, MIT, Cambridge, MA, USA  
J. Atmos. Sci (USA), Vol.32, No.10, 1970-6 (October 1975)  
Coden: JAHSAK

5. REMOTE SENSING OF ATMOSPHERIC TEMPERATURE PROFILES WITH  
THE NIMBUS 5 MICROWAVE SPECTROMETER

Waters, J. W.  
Jet Propulsion Lab., Pasadena, CA  
Kunzi, K. F.; Pettyjohn, R. L.; Poon, R. K. L.; Staehlin, D. H.  
Mass. Inst. of Tech., Cambridge, MA  
Journal of Atmospheric Science, Vol. 32, No. 10, pp 1953-69  
(October 1975)

6. SYNOPTIC-SCALE STUDIES USING THE NIMBUS 6 SCANNING MICROWAVE SPECTROMETER

Grody, N. C.; Pellegrino, P. P.  
Nat. Envir. Sat. Serv., NOAA, Washington, DC, USA  
J. Appl. Meteorol. (USA), Vol. 16, No. 8, 816-26 (August 1977)  
Coden: JAMOAX

7. MICROWAVE SPECTROSCOPIC IMAGERY OF THE EARTH

Staelin, D. H.; Rosenkranz, P. W.; Barath, F. T.;  
Johnson, E. J.; Waters, J. W.  
Science, Vol. 197, pp 991-93  
(September 1977)

8. AN EXTENDED KALMAN-BUCY FILTER FOR ATMOSPHERIC TEMPERATURE PROFILE  
RETRIEVAL WITH A PASSIVE MICROWAVE SOUNDER

Ledsham, W. H.; Staelin, D. H.  
Dept. of Electrical Engng. and Computer Sci., Mit. Cambridge, MA USA  
J. Appl. Meteorol. (USA), Vol. 17, No. 7, 1023-33 (July 1978)  
Coden: JAMOAX

9. ATMOSPHERIC LIQUID-WATER CONTENT DERIVED FROM PARAMETERIZATION  
OF NIMBUS 6 SCANNING MICROWAVE SPECTROMETER DATA

Kuo-Nan Liou; Duff, A. D.  
Dept. of Meteorology, Univ. of Utah, Salt Lake City, UT, USA  
J. Appl. Meteorol. (USA), Vol. 18, No. 1, 99-03 (January 1979)  
Coden: JAMOAX

10. GLOBAL BRIGHTNESS TEMPERATURE SPECTRA AT HIGH WAVENUMBERS UTILIZING  
SATELLITE MICROWAVE MEASUREMENTS

Stanford, J. L.  
Phys. Dept., Iowa State Univ., Ames, IA, USA  
J. Atmos. Sci. (USA), Vol. 37, No. 5, 1070-6 (May 1980)  
Coden: JAHSAK

PMR/SSU

(Pressure Modulated Radiometer/  
Stratospheric Sounding Unit)

1. SATELLITE TEMPERATURE SOUNDING OF THE ATMOSPHERE: GROUND TRUTH ANALYSIS

McClatchey, Robert A.

Air Force Geophysics Lab Hanscom AFB Mass

Rept No: AFGL-TR-76-0279; AFGL-AFSG-356 (November 1976)

2. DETERMINATION OF THE OPTIMUM FIELD OF VIEW AND SPACING BETWEEN OBSERVATIONS FOR A SATELLITE-BORNE SCANNING RADIOMETER OBSERVING THE STRATOSPHERE

Campbell, S.; May, B.

UK Meteorological Office, , England

Remote Sensing Environ. (USA), Vol.6, No.3, 157-67 (1977)

Coden: RSEEA7

3. ANNUAL AND SEMIANNUAL WAVES IN THE TEMPERATURE OF THE MESOSPHERE AS DEDUCED FROM NIMBUS 6 PMR MEASUREMENTS

Crane, A. J.

Clarendon Lab., Oxford, London, England

Q. J. R. Meteorol. Soc. (GB), Vol. 105, No. 445, 509-20 (July 1979)

Coden: QJRMAM

4. MEAN MERIDIONAL CIRCULATIONS OF THE STRATOSPHERE AND MESOSPHERE

Crane, A. J.; Haigh, J. D.; Phle, J. A.; Rogers, C. F.

Pure and Appl. Geophys. (Switzerland), Vol. 118, No. 1, 307-2 (1980)

Coden: PAGYA

5. REVIEW OF THE RADIANCE DISTRIBUTION IN THE UPPER MESOSPHERE AS OBSERVED FROM THE NIMBUS 6 PRESSURE MODULATOR RADIOMETER (PMR)

Labitzke, K.; Barnett, J. J.

Inst. For Meteorology, Freie Univ. Berlin, Berlin, Germany

Planet. and Space Sci. (GB), Vol. 29, No. 6, 673-85 (June 1981)

Coden: PLSSAE

6. RADIOMETER FOR REMOTE SOUNDING OF THE UPPER ATMOSPHERE

Taylor, F. W.; Houghton, J. T.; Peskett, G. D.; Rodgers, C. D.;  
Williamson, E. J.  
Oxford Univ., England  
Appl. Opt. (USA), Vol.11, No. 1, 135-41 (January 1981)  
Coden: APOPAI

SSH

(Special Sensor H)

1. AN ALGORITHM TO RETRIEVE WATER VAPOR INFORMATION FROM SATELLITE MEASUREMENTS

Crane, Robert K.  
Environmental Research and Technology Inc.  
Final rept.  
Rept. No. NEPRF-TR-7-76-(ERT) (November 1976)

2. ERROR ANALYSES OF OPERATIONAL SATELLITE SOUNDINGS OF VERTICAL TEMPERATURE PROFILES

Mount, Wayne D.; Fow, B. Richard; Gustafson, Donalf E.; Ledsham, William  
Geo Atmospherics Corp  
Rept No: GAC-78-CR-001, AFGL-TR-77-0248 (December 1977)

3. SPECIAL SENSOR H (SSH) MOISTURE SOUNDING

Savage, Richard C.  
Air Force Global Weather Central Offutt AFB NE.  
Rept No: AFGWC TN-80 001 (March 1980)

SIRS

(Satellite Infrared Spectrometer)

1. COMPUTATIONS OF DOWNWARD RADIATION FLUX BASED UPON A RANDOM SAMPLE OF RADIOSONDE OBSERVATIONS, AND CORRELATION OF THE RESULTS WITH CORRESPONDING SIMULATED NIMBUS II SATELLITE AIR MASS PROPERTIES

Tupaz, Jesus Bonifacio (Masters Thesis)  
Naval Postgraduate School, Monterey, Calif. (June 1967)

2. ATMOSPHERIC TEMPERATURE: SUCCESSFUL TEST OF REMOTE PROBING

Wark, D. Q.; Hilleary, D. T.  
Nat. Envir. Sat. Serv., Washington, D. C., USA  
Science (USA) Vol.165, No. 3899 1256-8 (September 1969)

3. SIRS: AN EXPERIMENT TO MEASURE THE FREE AIR TEMPERATURE FROM A SATELLITE

Wark, D. Q.  
Nat. Envir. Sat. Service, Washington, D.C., USA  
Appl. Optics (USA), Vol. 9, No. 8, 1761-6 (August 1970)

4. VERTICAL SOUNDING OF THE ATMOSPHERE WITH NIMBUS IV INFRARED SPECTROMETER EXPERIMENT

Conrath, B. J.; Hanel, R. A.; Prabhakara, C.; Kunde, V. G.; Revah, I.;  
Salomonson, V. U.  
NASA, Greenbelt, MD., USA  
Proc. of 21st Congress of International Astronautical Federation,  
1009-18 (1971)

5. SOME ASPECTS OF PRACTICAL SOLUTION OF THE PROBLEM ON ATMOSPHERIC THERMAL SOUNDING FROM SATELLITES

Kondratyev, K. YA.; Pokrovsky, O. M.; Timofeev, YU. M.  
Napolitano. L.G. (Editors)  
Astronautical Research 1970. Proceedings of the 21st Congress  
of the International Astronautical Federation, 1027-30 (1971)

6. TEMPERATURE SOUNDING FROM SATELLITES

Fritz, S.; Wark, D. Q.; Fleming, H. E.; Smith, W. L.;  
Jacobowitz, H.; Hilleary, D. T.; Alishouse, J. C.  
National Environmental Satellite Service, NOAA, Washington, D.C.  
NOAA Technical REport NESS 59  
(July 1972)

7. RETRIEVAL OF ATMOSPHERIC TEMPERATURE PROFILES FROM SATELLITE MEASUREMENTS FOR DYNAMICAL FORECASTING

Smith, W. L.; Woolf, H. M.; Fleming, H. E.  
Journal Appl. Meteorology, Vol. 11, pp 113-22  
(February 1972)

8. THE MEASUREMENT OF ATMOSPHERIC TEMPERATURE PROFILES FROM SATELLITES

Major, G.

Kozponti Legkorfizikai Intezet, Budapest, Hungary  
Fiz. Sz. (Hungary), Vol. 23, No. 6, 174-8 (June 1973)  
Coden: FISZA6

9. SATELLITE OBSERVATIONS OF ATMOSPHERIC WATER VAPOR

Wark, D. Q.; Lienesch, J. H.; Weinreb, M. P.  
Nat. Envir. Sat. Serv., NOAA, Washington, DC USA  
Appl. Opt. (USA), Vol. 13, No. 3, 507-11 (March 1974)  
Coden: APOPAI

10. A FURTHER COMPARISON OF 50-MILLIBAR GEOPOTENTIALS OBTAINED FROM  
SATELLITE INFRA-RED SPECTROMETER SOUNDINGS AND ANALYSED CHARTS

Bailey, V.  
Meteorol. Mag. (GB), Vol. 106, No. 1259, 165-9 (June 1977)  
Coden: MTMGA5

11. OBSERVATIONS OF STRATOSPHERIC THERMAL STRUCTURE FROM SATELLITES AND  
ATLAS OF STRATOSPHERIC THERMAL STRUCTURE

Kleespies, T. J.  
Colorado State University, Fort Collins, Co.  
Environmental Research Papers, No. 8 (May 1977)

12. EXAMPLES OF HUMIDITY CHARACTERISTIC RETRIEVAL FROM SATELLITE  
OUTGOING THERMAL RADIATION MEASUREMENTS

Juznetsov, A. D.; Timofeev, YU. M.  
Leningrad State Univ., Leningrad, USSR  
Trans In: Sov. Meteorol. and Hydroli (USA), No. 9, 17-23 (1978)  
Coden: SMHYDK

13. THE ERROR IN SATELLITE RETRIEVED TEMPERATURE PROFILES DUE TO THE  
EFFECTS OF ATMOSPHERIC AEROSOL PARTICLES

Stowe, L. L.; Fleming, H. E.  
Nat. Envir. Sat. Service, Washington, DC, USA  
Remote Sensing Environ., (USA), Vol. 9, No. 57-6, (February 1980)  
Coden: \$RSEEA

SCR

(Selective Chopper Radiometer)

1. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURE FROM SATELLITES.

I. INTRODUCTION

Houghton, J. T.; Smith, S. D.  
Univ. Oxford, England  
Proc. R. Soc. A (GB) Vol. 320 No.1540 23-33 (1970)

2. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURE FROM SATELLITES.

II. THE SELECTIVE CHOPPER RADIOMETER FOR NIMBUS D

Abel, P. G.; Ellis, P. J.; Houghton, J. T.; Peckham, G.;  
Rodgers, C. D.; Smith, S. D.; Williamson, E. J.  
Univ. Oxford, England  
Proc. R. Soc. A (GB) Vol. 320, No. 1540, 35-55 (1970)

3. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURES FROM SATELLITES.

III. MEASUREMENTS UP TO 35 KM ALTITUDE WITH A BALLOON-BORNE  
SELECTIVE CHOPPER RADIOMETER

Abel, P. G.; Houghton, J. T.; Matley, J. B.; Williamson, E. J.  
Univ. Oxford, England  
Proc. R. Soc. A (GB) Vol.320, No.1540 57-69 (1970)

4. INFRA-RED ATMOSPHERIC TEMPERATURE SOUNDING FROM SATELLITES

Ellis, P. J.; Peckham, G.; Sandwell, R.; Smith, S. D.;  
Houghton, J. T.; Rodgers, C. D.; Williamson, E. J.  
Heriot-Watt Univ. Riccarton, Currie, Scotland  
Radio and Electron. Eng. (GB) Vol.42, No.4 155-61 (April 1972)  
Coden: RDEEA4

5. REMOTE SOUNDING OF ATMOSPHERIC TEMPERATURE FROM SATELLITES.

IV. THE SELECTIVE CHOPPER RADIOMETER FOR NIMBUS 5

Ellis, P.; Holah, G.; Houghton, J. T.; Jones, T. S.; Peckham, G.;  
Peskett, G. D.; Pick, D. R.; Rodgers, C. D.; Roscoe, H.;  
Sandwell, R.; Smith, S. D.; Williamson, E. J.  
Heriot-Watt Univ., Edinburgh, Scotland;  
Proc. R. Soc. A (GB), Vol. 334, No. 1597, 149-70 (1973)

6. CLOUD TOP HEIGHTS FROM TEMPERATURE SOUNDING INSTRUMENTS

McCleese, D. J.; Wilson, L. S.

Dept. of Atmospheric Phys., Oxford Univ., Oxford, England

Q. J. R. Meteorol. Soc. (GB), Vol. 102, No. 434, 781-90 (October 1976)

Coden: QJRMAM

7. KELVIN WAVES IN THE EQUATORIAL MIDDLE ATMOSPHERE OBSERVED BY THE NIMBUS 5 SCR

Hirota, I.

Geophys. Inst., Kyoto Univ., Kyoto, Japan

J. Atmos. Sci. (USA), Vol. 36, No. 2, 217-22, (February 1979)

Coden: JAHSAK

8. INTERPRETATION OF NIMBUS 5 SCR DATA FOR OBTAINING VERTICAL TEMPERATURE PROFILES

Molnar, G. Y.

Dept. of Atmospheric Phys., Univ. of Oxford, Oxford, England

W. J. R. Meteorol. Soc. (GB), Vol. 105, No. 444, 461-7 (April 1979)

Coden: QJRMAM

THIR

(Temperature Humidity Infrared Radiometer)

1. IMPROVEMENT OF SYNOPTIC SCALE MOISTURE AND WIND FIELD ANALYSIS USING THE NIMBUS 4 THIR 6.9 MICROMETER OBSERVATIONS

Steranka, J.; Allison, L. J.; Salomonson, V. V.

Goddard, NASA, Greenbelt, MD.

Bull. Am. Meteorol. Soc. (USA), Vol. 53, No. 5, 508 (May 1972)

Coden: BAMIAT

2. APPLICATION OF NIMBUS 4 THIR 6.7 MICROMETER OBSERVATIONS TO REGIONAL AND GLOBAL MOISTURE AND WIND FIELD ANALYSES

Steranka, J.; Allison, L. J.; Salomonson, V. V.

NASA, Greenbelt, MD., USA

J. Appl Meteorol. (USA), Vol. 12, No. 2, 386-95 (March 1973)

Coden: JAMOAX

3. NIMBUS 4 OBSERVATIONS OF CHANGES IN TOTAL OZONE AND STRATOSPHERIC TEMPERATURE DURING A SUDDEN WARMING

Ghazi, A.

NASA, Greenbelt, MD., USA

J. Atmos. Sci. (USA) Vol. 31, No. 8, 2197-206 (November 1974)

Coden: JAHSAK

TOVS

(TIROS Operational Vertical Sounder)

1. DETERMINATION OF MOISTURE FROM NOAA POLAR ORBITING SATELLITE SOUNDING RADIANCES

Hayden, C. M.; Smith, W. L.; Woolf, H. M.

National Earth Satellite Service, NOAA, Madison, WI

Jour. of Appl. Meteorology, Vol. 20, No. 4, pp 450-66

(April 1981)

2. TRANSMITTANCES FOR THE TIROS OPERATIONAL VERTICAL SOUNDER

Weinreb, M. P.; Fleming, H. E.; McMillin, L. M.; Neuendorffer, A. C.

Nat. Earth Sat. Service

NOAA, Washington, D. C.

NOAA Technical Rept. NESS 85

(September 1981)

3. ATMOSPHERIC SOUNDING USERS' GUIDE

Werbowski, A., Editor

Nat. Earth Sat. Service

NOAA, Washington, D.C.

NOAA Technical Rept. NESS-83

(April 1981)

VAS

(VISSR Atmospheric Sounder)

1. VAS DEMONSTRATION SOUNDING WORKSHOP: THE PROCEEDINGS OF A SATELLITE SOUNDING WORKSHOP

Endres, D. L.; Uccellini, L. W.  
Goddard, NASA, Greenbelt, MD.  
Rept No: NASA-CP-2157 (July 1980)  
Conf. Held at Goddard Space Flight Center, Greenbelt, MD.

2. FIRST SOUNDING RESULTS FROM VAS-D

Smith, W. L.; Wolf, H. M.; Hayden, C. M.  
National Earth Satellite Service, NOAA, Madison, WI  
Suomi, V. E.; Menzel, W. P.; Sromovsky, L. A.; Reversomb, H. E.;  
Erickson, D. N.; Mosher, F. R.  
Space Science and Eng. Center  
University of Wisconsin, Madison, WI  
Bull. American Meteorological Society, Vol. 62, No. 2, pp 232-36  
(February 1981)

VISSR

(Visible IR Spin Scan Radiometer)

1. THE ROLE OF SATELLITES IN THE TROPICAL OBSERVING SYSTEM

Houghton, J. T.  
Dept. of Atmospheric Phys., Oxford Univ., Oxford, England  
Shaw, D.B. (Editors)  
Meteorology Over the Tropical Oceans, 261-73, 21-25 (August 1978)  
Publ: Royal Meteorological Soc., Bracknell, England 1978

2. SIMULTANEOUS CLOUD COMPARISONS USING DIGITAL RADAR AND SATELLITE MEASUREMENTS

Poellot, M. R.; Reynolds, D. W.  
Dept. of Aviation, Univ. of North Dakota, Grand Forks, ND, USA  
Space Instrumentation for Atmospheric Observation. IEEE Region V  
Annual Conference 86-91 (April 1979) El Paso, TX, USA

3. AN APPLICATION OF A GEOSTATIONARY SATELLITE RAIN ESTIMATION TECHNIQUE  
TO AN EXTRATROPICAL AREA

Wylie, D. P.

Space Sci. and Engng. Center, Univ. of Wisconsin, Madison, WI, USA  
J. Appl. Meteorol. (USA), Vol. 18, No. 12, 1640-8 (December 1979)  
Coden: JAMOAX

VTPR

(Vertical Temperature Profile Radiometer)

1. CIRCULATION FEATURES OF THE STRATOSPHERE DERIVED FROM RADIOMETRIC  
TEMPERATURE MEASUREMENTS WITH THE TIROS VII SATELLITE

Kennedy, J. S.; Nordberg, W.

Goddard, NASA, Greenbelt, Md.

Rept No: NASA-TM-X-55859; X-620-67-134 (March 1967)

2. ACCURACY AND COVERAGE OF TEMPERATURE DATA DERIVED FROM IR RADIOMETER  
ON NOAA 2 SATELLITE

Jastrow, R. J.; Hale, M.

Goddard Space Institute, NASA, New York USA

J. Atmos Sci (USA), Vol. 30, No. 5, 958-64 (July 1973)

Coden: JAHSAK

3. A COMPARISON BETWEEN STRATOSPHERIC TEMPERATURES MEASURED IN SITU  
BY RADIOSONDES AND REMOTELY SENSED BY THE VERTICAL TEMPERATURE  
PROFILE RADIOMETER (VTPR) OF THE NOAA 2 SATELLITE

Johnson, K. W.

Nat. Weather Service, NOAA, Washington, USA

EOS. Trans. Am. Geophys. Union (USA), Vol. 54, No. 4, 277 (April 1973)

4. EXPECTED ACCURACY OF TROPOPAUSE HEIGHT AND TEMPERATURE AS  
DERIVED FROM SATELLITE RADIATION MEASUREMENTS

Strand, O. N.

Environmental Research Laboratories

NOAA, Boulder, Col.

NOAA Technical Report ERL 295-WPL-28  
(December 1973)

5. OPERATIONAL SOUNDING OF THE ATMOSPHERE FROM NOAA 2 SATELLITE DATA  
Wark, D. Q.; Bittner, F. E.; Crosby, D. S.; Fleming, H. E.;  
Lauritson, L.A.; Luebbe, R.C.; McMillin, L.M.; Pritchard, J.A.;  
Weinreb, M.P.; Werbowetzke, A.  
Nat. Environ., Sat. Serv., NOAA, Washington, DC USA  
EOS Trans. Am. Geophys. Union (USA), Vol. 54, No.4, 276 (April 1973)
6. ITERATIVE RETRIEVAL AND STATISTICAL SPECIFICATION OF  
ATMOSPHERIC THICKNESSES FROM VTPR CLEAR COLUMN RADIANCE DATA  
Moran, Douglas Ray (Masters Thesis) (March 1974)  
Naval Postgraduate School
7. DIRECT APPLICATION OF VTPR DATA  
Valovcin, Francis R.  
Air Force Cambridge Research Labs.  
Rept No: AFCRL-TR-74-0591 (1974)
8. TEST AND EVALUATION OF A VTPR RETRIEVAL SYSTEM FROM CLEAR  
COLUMN NOAA 2 RADIANCES  
Dyck, Harry Milton Jr (Masters Thesis)  
Naval Postgraduate School, Monterey Calif. (March 1975)
9. EVALUATION OF THE NOAA 4 VTPR THERMAL WINDS FOR NUCLEAR FALLOUT  
PREDICTIONS  
Duncan, Louis D.; Seagraves, Mary Ann  
Army Electronics Command Fort Monmouth NJ  
Rept No: ECOM-5815 (March 1977)
10. DERIVING MESOSCALE TEMPERATURE AND MOISTURE FIELD FROM SATELLITE  
RADIANCE MEASUREMENTS OVER THE UNITED STATES  
Hillger, D. W.; Vonderharr, T. H.  
Dept. Of Atmospheric Sci., Colorado State Univ., Fort Collins, CO, USA  
J. Appl. Meteorol. (USA), Vol. 16, No. 7, 715-26 (July 1977)  
Coden: JAMOAX
11. A TECHNIQUE FOR ESTIMATING ATMOSPHERIC MOISTURE PROFILES FROM  
SATELLITE MEASUREMENTS  
Weinreb, M. P.; Crosby, D. S.  
Nat. Environmental Satellite Service, NOAA, Washington, DC USA  
J. Appl. Meteorol. (USA), Vol. 16, No. 11, 1214-18 (November 1977)  
Coden: JAMOAX

12. SENSITIVITY OF SATELLITE RETRIEVALS OF TEMPERATURE TO ERRORS  
IN ESTIMATES OF TROPOSPHERIC WATER VAPOR

Weinreb, M. P.

Nat. Envir. Sat. Serv., NOAA, Washington, DC USA

J. Appl. Meteorol. (USA), Vol. 16, No. 6, 605-13 (June 1977)

Coden: JAMOAX

13. AN ANALYSIS OF SATELLITE INFRARED SOUNDINGS AT THE MESOSCALE USING  
STATISTICAL STRUCTURE AND CORRELATION FUNCTIONS

Hillger, D. W.; Vonderhaar, T. H.

Dept. of Atmospheric Sci. Colorado State Univ., Fort Collins, CO, USA

J. Atmos. Sci. (USA), Vol. 36, No. 2, 287-05 (February 1979)

Coden: JAHSAK

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